Wyoming Greater Sage-grouse Plan Amendments

LIVESTOCK GRAZING

Wyoming
DEPARTMENT OF Agriculture

OVERVIEW

- 9 BLM Field Offices across 3 Districts
- 2 National Forests and 1 National Grassland across 2 Regions
- 2 Records of Decision (1 for USFS, 1 for BLM)
- Plans and RODs address COT ID'd threats to GRSG
- Feasibility of full Implementation and mixed interpretations will be the largest challenge

CRITICAL COMPONENTS

- Both USFS and BLM rely on ESDs and Stiver et al. 2015 Habitat Assessment Framework
- Vegetation Tables are objectives- not rules
- Managers must adapt for local conditions
- Local variability and site potential are key drivers
- Grazing objectives apply in specific areas at specific times
- Grazing may be adjusted based on sage-grouse habitat objectives but it is not required. Objectives have to be specific to the area.
- There are few, if any, true “sage-grouse requirements”. Managers must adjust based on local conditions.
- Grazing adjustments should consider Cagney et al. 2010 (BLM)*; USFS guidance is unknown

BEFORE ANYTHING HAPPENS…

- *"Establishing achievable long-term goals based on state and transition models is a critical first step in synchronizing sagebrush plant community objectives with grazing management strategies"* (Cagney et al. 2010, pg. 4)
  - In other words, if you have not set realistic, local, goals for both you will undoubtedly fail

MAJOR TABLE COMPONENTS

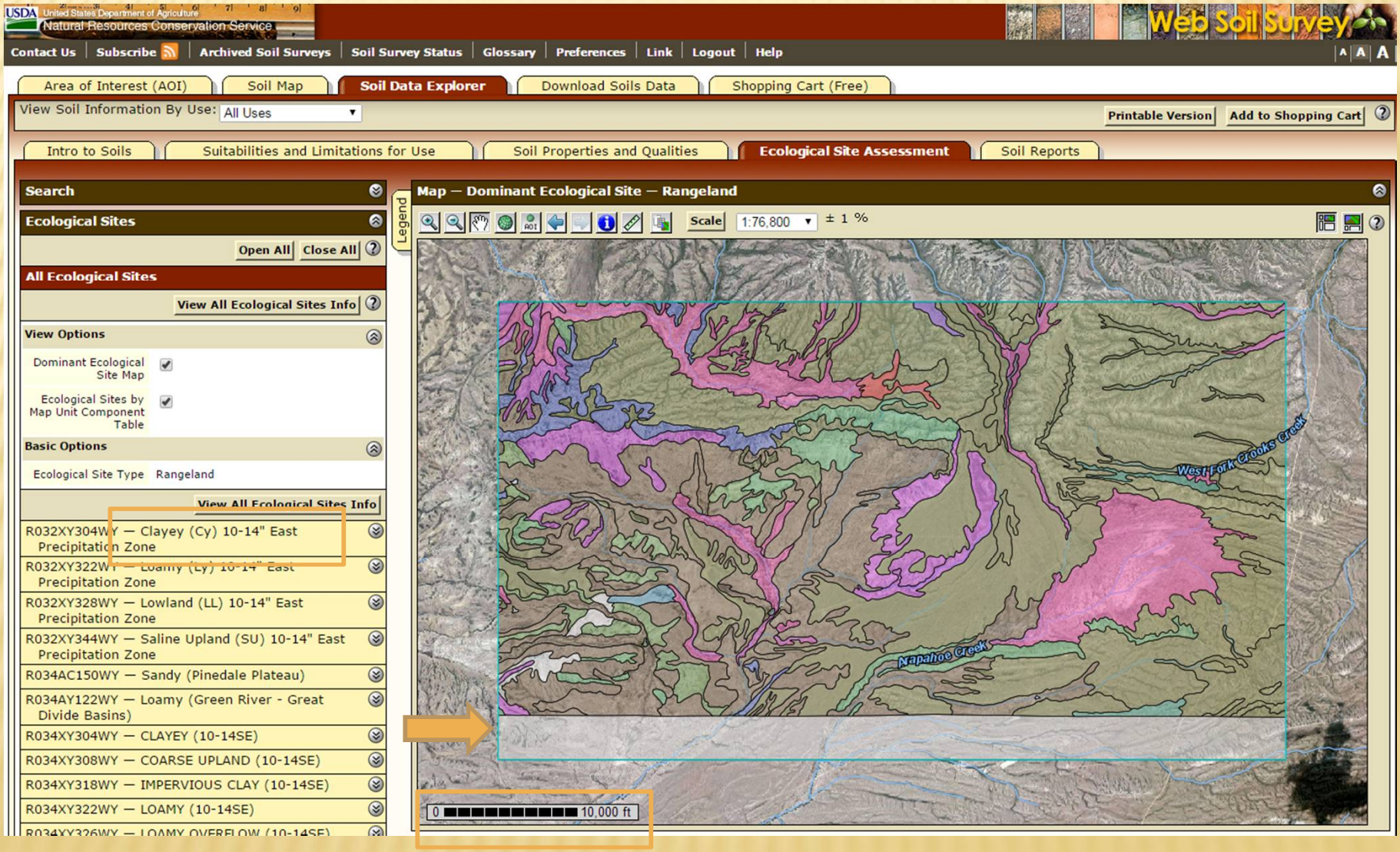
- "Requirements" vs. "Desired Conditions"
  - e.g., There are no "stubble height requirements" only "desired conditions"
- Adaptability and basis in "local variability"
  - All Desired Conditions must be based on local site variability and capability
- Application and location of data collection
  - e.g., Nesting data collected at (or near) the nest site not interstitial space

MAJOR TABLE COMPONENTS

- Data Collection: When, Where, What
  - When: Breeding/Nesting guidelines during Breeding/Nesting season (March 1 – June 15) after nesting these portions of the tables are meaningless. Same concept for Summer and Winter.
  - Where: In defined Breeding/Nesting, Summer, or Winter habitats
  - What: Preferred species, perennial grass heights, forb heights, residual heights, etc.

"LOCAL VARIATION"

- In order to determine local variability you have to have a baseline to begin with
  - ESDs should serve as the basis but are lacking in areas
  - Where ESDs are lacking…
    - Soils have to be mapped
    - Potential plant species have to be determined
    - Anomalies have to be accounted for
    - Preferred plant species have to be identified
    - Inputs have to be quantified correctly (precip, history, slope, etc.)
    - Plant community responses have to be estimated
    - Issues of scale
    - Etc.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R032XY344WY — Saline Upland (SU) 10-14" East Precipitation Zone
R034AC150WY — Sandy (Pinedale Plateau)
R034AY122WY — Loamy (Green River - Great Divide Basins)
R034XY304WY — CLAYEY (10-14SE)
R034XY308WY — COARSE UPLAND (10-14SE)
R034XY318WY — IMPERVIOUS CLAY (10-14SE)
R034XY322WY — LOAMY (10-14SE)
R034XY326WY — LOAMY OVERFLOW (10-14SE)
Legend
Map — Dominant Ecological Site — Rangeland
Scale 1:76,800 ± 1 %
West Fork Crooks Creek
Napahoe Creek
0 10,000 ft

MAJOR TABLE COMPONENTS

- BOTTOM LINE: The tables and heights are meant as objectives - not rules. They MUST be adjusted for local realities.*
  - BLM Table 2-2 states: *"All Desired Conditions will be dependant on site capability and local variation…"* (9 Plan ROD, pg. 31)
  - USFS Livestock Grazing Guideline 37 states: *"…adjust grazing management to move towards desired habitat conditions…consistent with the ecological site potential."* (WY ROD, pg. 103)**

THE PROCESS - USFS

- The USFS will use a *"phased-in approach within 18-24 months after signing of the ROD"* and may take *"up to 36 months…for permit modification and full implementation"* (Rocky Mtn ROD, pg. 65)
  - 1st Phase: *"habitat mapping that identifies GRSG habitat and an evaluation of allotments (i.e. specific pastures and riparian/mesic areas). The Habitat Assessment Framework protocol…will be used"* (Rocky Mtn ROD, pg. 65)
  - 2nd Phase: *"term grazing permits of affected allotments will be modified with new grazing guidance by the 2017 grazing season…and no later than 2018"* (Rocky Mtn ROD, pg. 65)

THE PROCESS - BLM

- *"Within PHMAs, all BLM use authorizations will contain terms and conditions regarding the actions needed to meet or progress towards meeting the habitat objectives* [for GRSG]" (9 Plan ROD, MD LG 4, pg. 46)
- The BLM will *"evaluate land health standards achievement in PHMAs…and, where not achieved, determine if existing grazing management practices…are significant factors in failing…"* (9 Plan ROD, MD LG 1, MD LG 5, pg. 45)

THE PROCESS - BLM

- The BLM will *"prioritize (1) the review of grazing permits/leases…to determine if modification is necessary prior to renewal, and (2) the processing of grazing permits/leases in SFAs followed by PHMAs outside of SFAs. In setting workload priorities, precedence will be given to existing permits/leases…not meeting Land Health Standards, with focus on those containing riparian areas…"* (9 Plan ROD, MD LG 5, pg. 47)

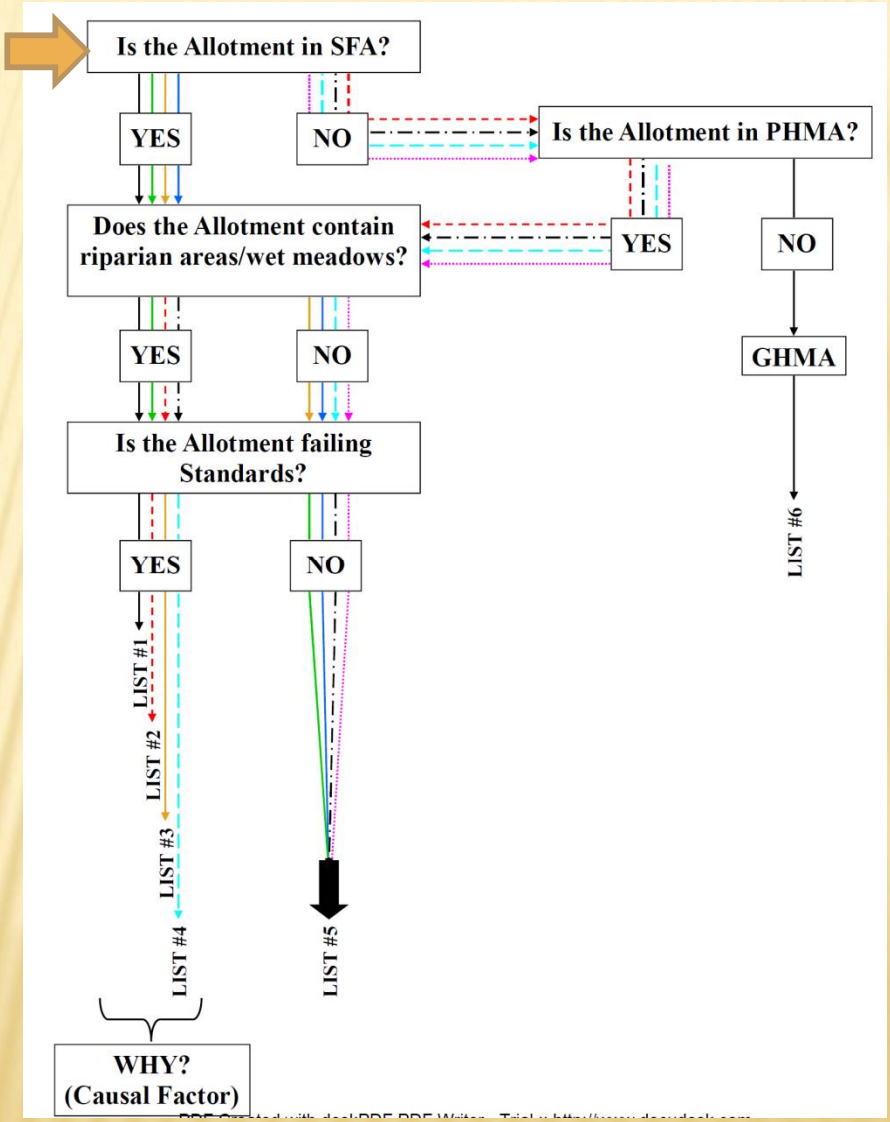
THE PROCESS – BLM

- BLM allotments will then be *"prioritized for field checks to help ensure compliance with terms and conditions of the grazing permit"* starting with *"…those within SFAs, followed by those within PHMAs, and focusing on those containing riparian areas, including wet meadows…"* (9 Plan ROD, MD LG 5, pg. 46)
  - *"Field checks"* would only occur after a permit has been changed (new Terms and Conditions)
  - How do CCA's fit into this?

THE PROCESS

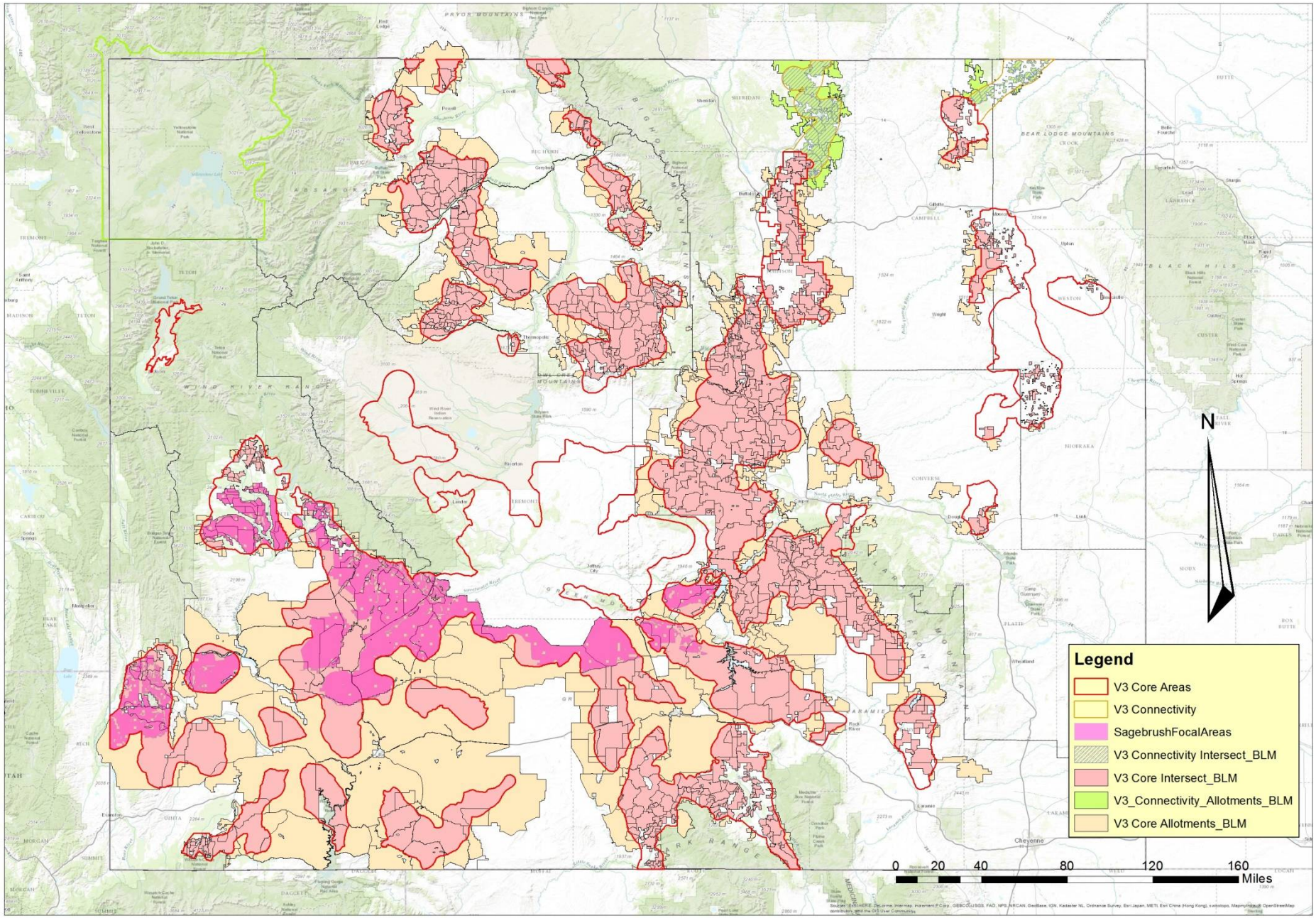
- I/M/C Allotment? (BLM)
- In or out of SFA/PHMA?
- 3rd and 4th Order Habitat Selection as described in Stiver et al. 2015
- Determine site potential and cross-reference to Stiver et al. 2015 for preferred species
- Determine if the allotment is meeting or progressing towards Standards and/or SG objectives
  - If it is not, why? Causal factor/Cagney et al. 2010 (BLM)

PRIORITIZATION– BLM I/M/C



PRIORITIZATION - BLM

1. **Prioritize Allotments (MD LG 5)**
    a. Is the allotment classified as I, M, or C?
    b. Is the allotment in SFA? PHMA? *(MD LG 5)*
        i. Entirely or Partially "within"? *(MD LG 5)*
    c. Does the allotment contain riparian areas or wet meadows? *(MD LG 5)*
    d. Is the allotment failing standards? *(MD LG 5)*
        i. Causal Factor? *(CFRs)*
        ii. Has a Hard or Soft trigger been tripped? *(MD SSS 13)*
            1. Has a causal factor determination been completed? *(MD SSS 13)*
        iii. Would changes in livestock grazing result in positive impacts to habitat? *(MO 10)*
            1. Have all options been considered? *(MD LG 1)*
            2. Is livestock grazing "balanced" correctly? *(MD LG 10)*
            3. Is modification necessary prior to renewal? *(MD LG 5)*
    e. Is NEPA current on the allotment? *(MD LG 4)*
        i. Does the NEPA document for modification contain defined responses that allow Adaptive Management? *(MD LG 4)*
            1. Are those responses consistent with local variability and ESDs? *(MO 6, MO 8)*
    f. Have measurable objectives (goals) been established? *(MO 7, MO 11)*
        i. Is an effective grazing system in place? *(MO 6)*
        ii. Is there available data and reliable ESDs? *(MO 6, MO 16)*
    g. Has the Habitat Assessment Framework tool been completed? *(MO 9, MD GMD 15)*
        i. Have preferred species been identified?
2. **Make adjustments/adaptive management**
    a. Consult with permittees, and partners. *(MD LG 2, MD SSS 13, MD GMD 3, MD GMD 5, MO 1, MO 9)*
    b. Refer to Cagney et al. 2010 *(MO 11)*
    c. If a trigger is tripped
        i. Causal Factor Det. *(MD SSS 13)*
            1. Refer to Cagney et al. 2010 *(MO 11)*
            2. Make adjustments based on prior defined responses and/or eval by Working Group *(MD LG 4, MD SSS 13)*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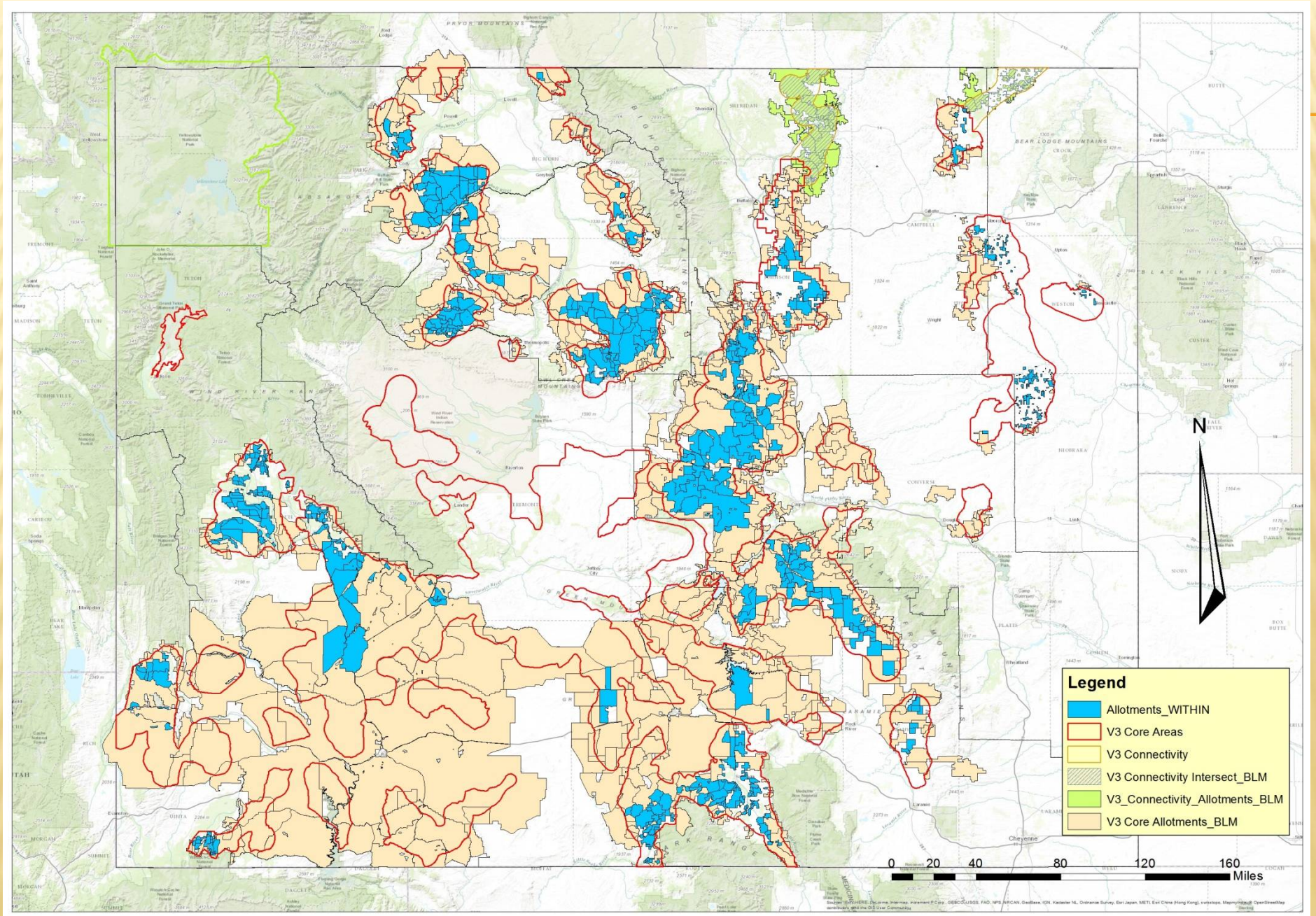
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THE PROCESS – ALLOTMENT LEVEL (BLM)

- Prioritized allotments will be "reviewed"
  - Review could be many things – may be as simple as paper review or could be as intensive as on-the-ground.
  - Review centers around allotments not meeting Standards (MD LG 5)
  - Key issues during review
    - Reason for failure (Causal Factor) and what Standard(s) failure was realized on – some may not relate to grazing
    - Available data (ESDs, veg monitoring, historic use, etc.)
    - Existing flexibility or need for new documentation (NEPA)

THE PROCESS – ALLOTMENT LEVEL (BLM)

- Reviews of Reviews
  - Initial Review – Which allotments need to be reviewed first? (Lists 1-4)
    - Second Review – Of those, which did not fail due to livestock grazing?
      - Third Review – Of the remaining, which allotments have up-to-date data available
        - Fourth Review – What data is necessary?
        - Fifth Review – Data collection, ground-truthing, ID preferred spp., Stiver et al. 4th Order selection
        - Sixth Review – Determine appropriate step(s) forward (causal factor, NEPA, grazing adjustments, range improvements, etc.)
        - Seventh Review – "Field Checks"

THE PROCESS – ALLOTMENT LEVEL

- Causal Factor Determination is tied to Adaptive Management
  - *"prioritize..the review of grazing permits/leases…to determine if modification is necessary prior to renewal…"* (9 Plan ROD, MD LG 5, pg. 47) and *"collaborate with appropriate federal agencies and the State of Wyoming…to determine if a causal relationship exists between improper grazing (by wildlife or wild horses or livestock) and* [not achieving] *GRSG conservation objectives…"* (9 Plan ROD, MD GMD 3, pg. 26)

THE PROCESS – ALLOTMENT LEVEL

- Before any changes occur many things have to be in place
  - Priority lists of allotments
  - ESDs or equivalent data
  - Guidelines (tables) adapted locally
  - Habitat/bird use within allotment(s) mapped (Stiver et al. 4th Order Selection)
  - Causal Factor Determination
  - NEPA w/ consideration to MD LG 4 (responses) and Cagney et al. 2010 (BLM)

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POSSIBLE CHANGE

- Rotation, season, timing, intensity, duration, numbers
  - For the BLM:
    - Management Objective 6: *"If an effective grazing system that meets sage-grouse habitat requirements is not already in place, analyze at least one…"* (9 Plan ROD, pg. 23)
    - Management Objective 11: *"In determining appropriate management actions that will be considered, refer to…Cagney et al. 2010 for guidance."* (9 Plan ROD, pg. 24)
    - MD LG 10: *"Grazing between riparian and upland habitats will be balanced to promote the production and availability of beneficial forbs for GRSG…"* (9 Plan ROD, pg. 50)

POSSIBLE CHANGE

- For grazing, change does not always mean reduction
  - *"Grazing between riparian habitats and upland habitats would be balanced to promote the production and availability of beneficial forbs…"* (9 Plan ROD, MD LG 10, pg. 50).
    - This could require changes in duration, intensity, or timing. (Increase forbs by decreasing grasses)

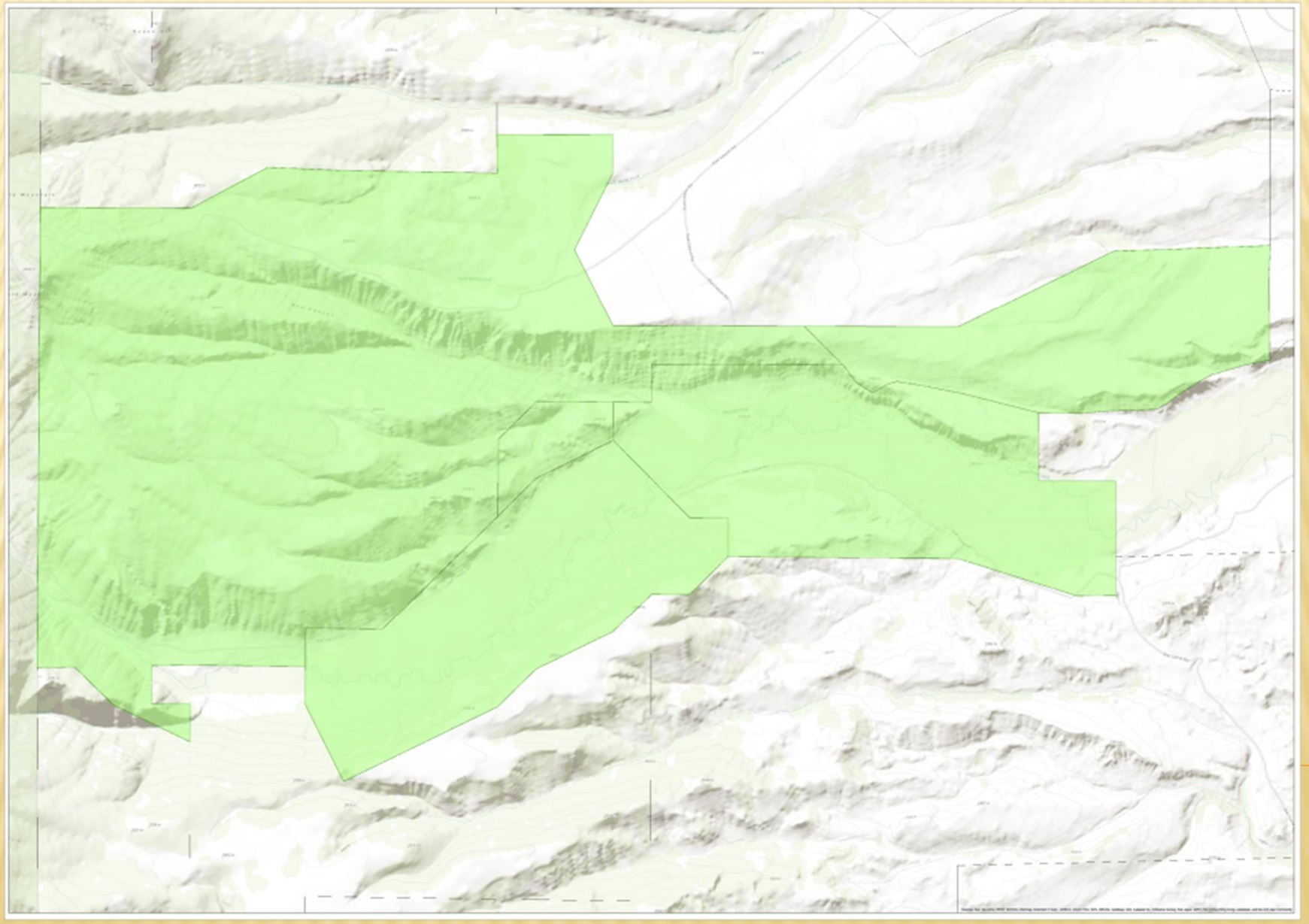
POSSIBLE CHANGE

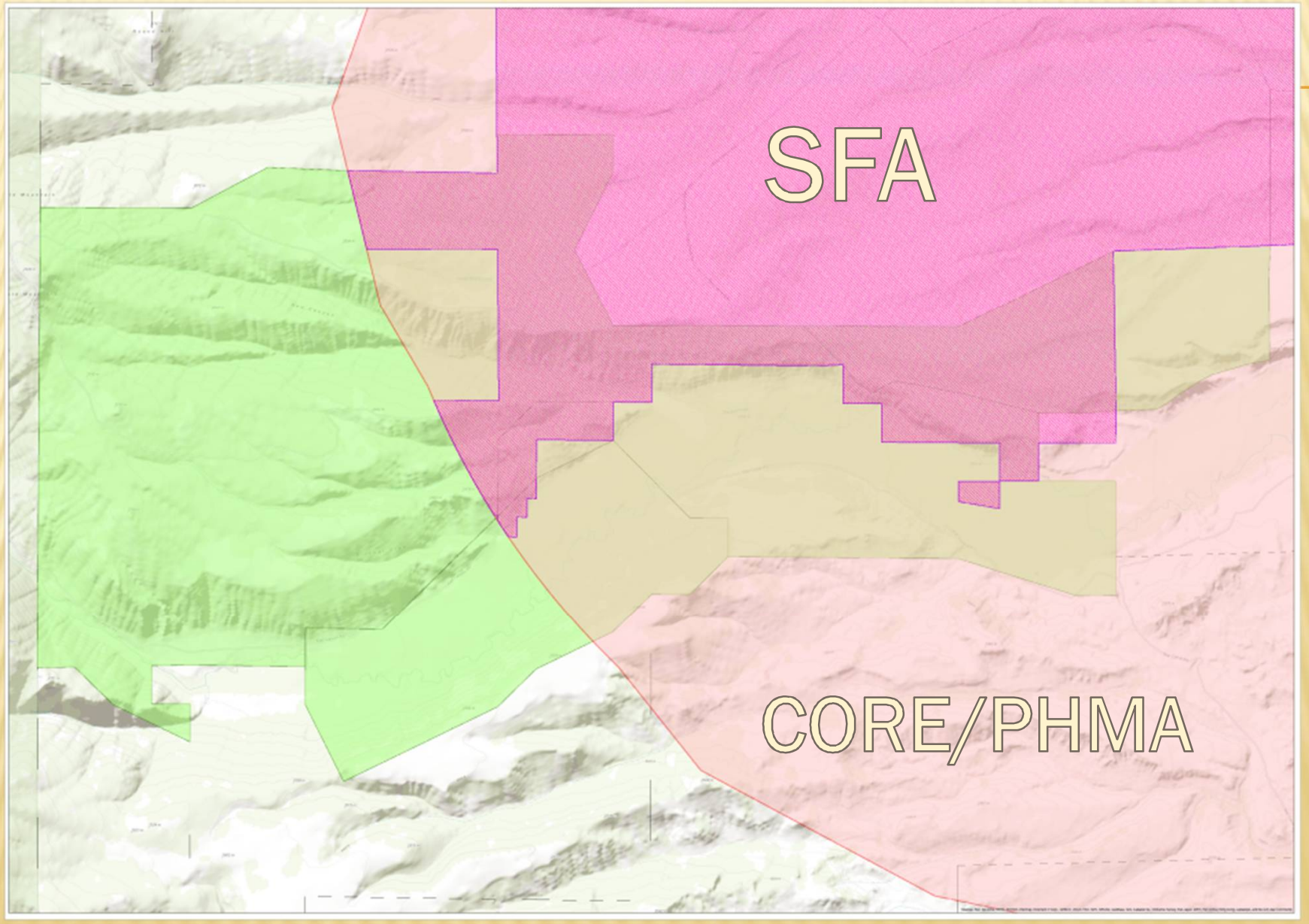
- Rotation, season, timing, intensity, duration, numbers
  - For the USFS:
    - Table 2: *"…manage for upland perennial grass height* [in breeding and nesting habitat] *of 7 inches*[3,5,6]*…Heights will be measured at the end of the nesting period* [JULY 1]*…post breeding and nesting…manage for 4 inches"* (WY ROD, pg. 103)
      - LG-GL-037: *"If values in table 2 cannot be achieved based upon a site-specific analysis using…*[ESDs] *adjust grazing management to move towards…table 1…"* (WY ROD, pg. 103)

GETTING FROM "A" TO "Z"

- Will not be fast…
- Cannot be rushed
- Will require adaptable plans/strategies
  - Greatest needs:
    - Data
    - Time/Patience
    - Flexibility
    - Staff/Man Hours ($)

WHAT COULD POST-PRIORITIZATION LOOK LIKE?

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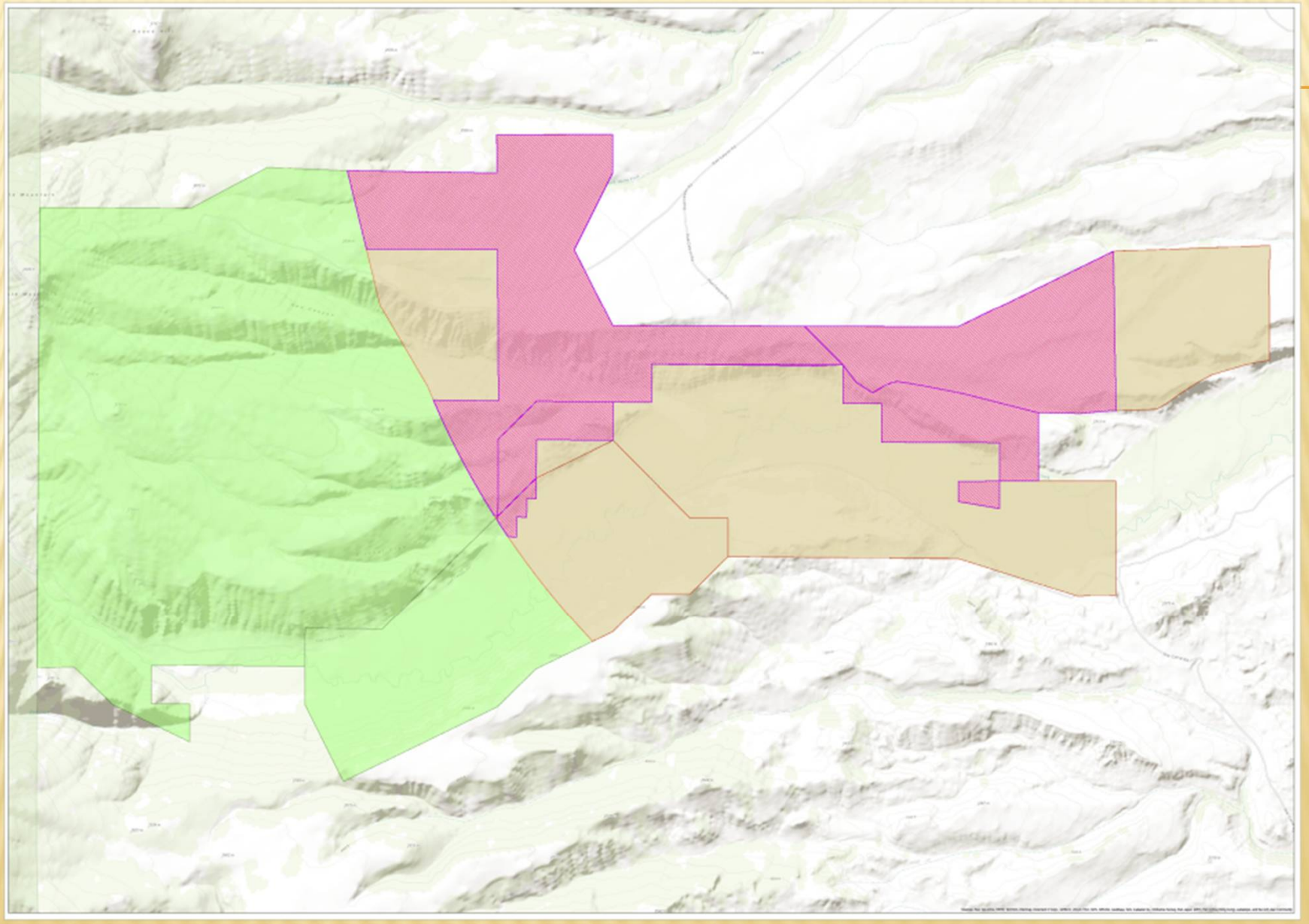

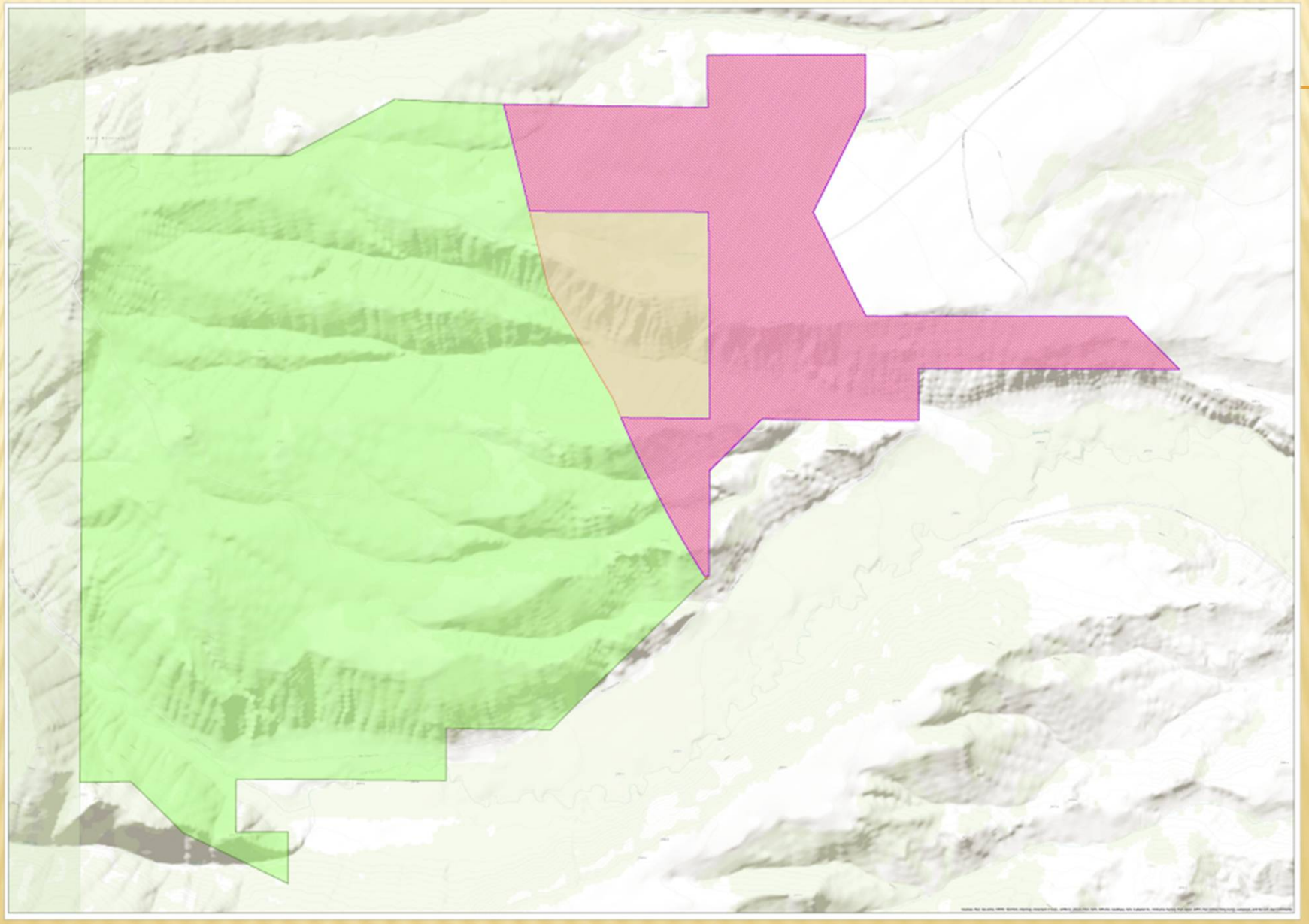

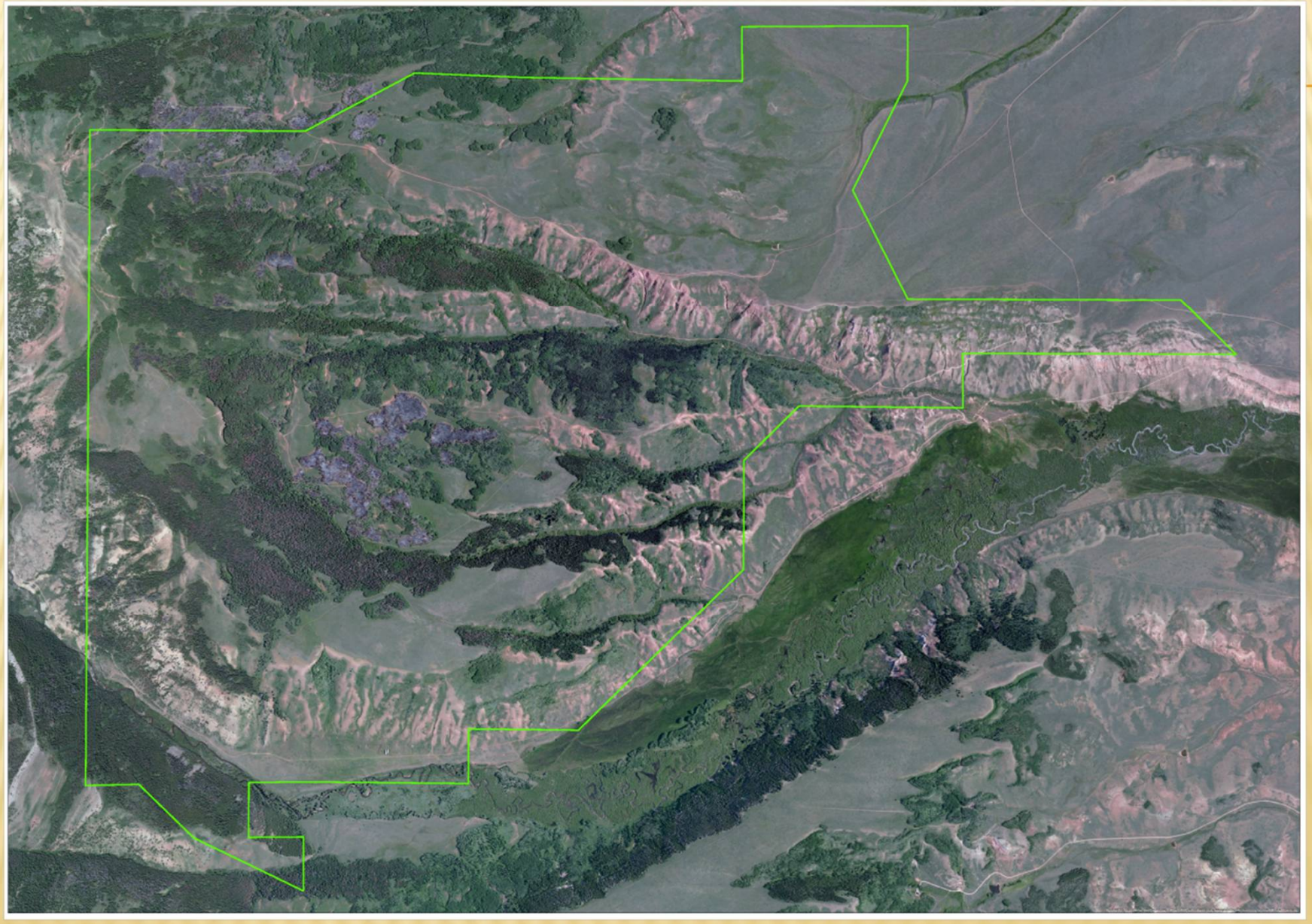

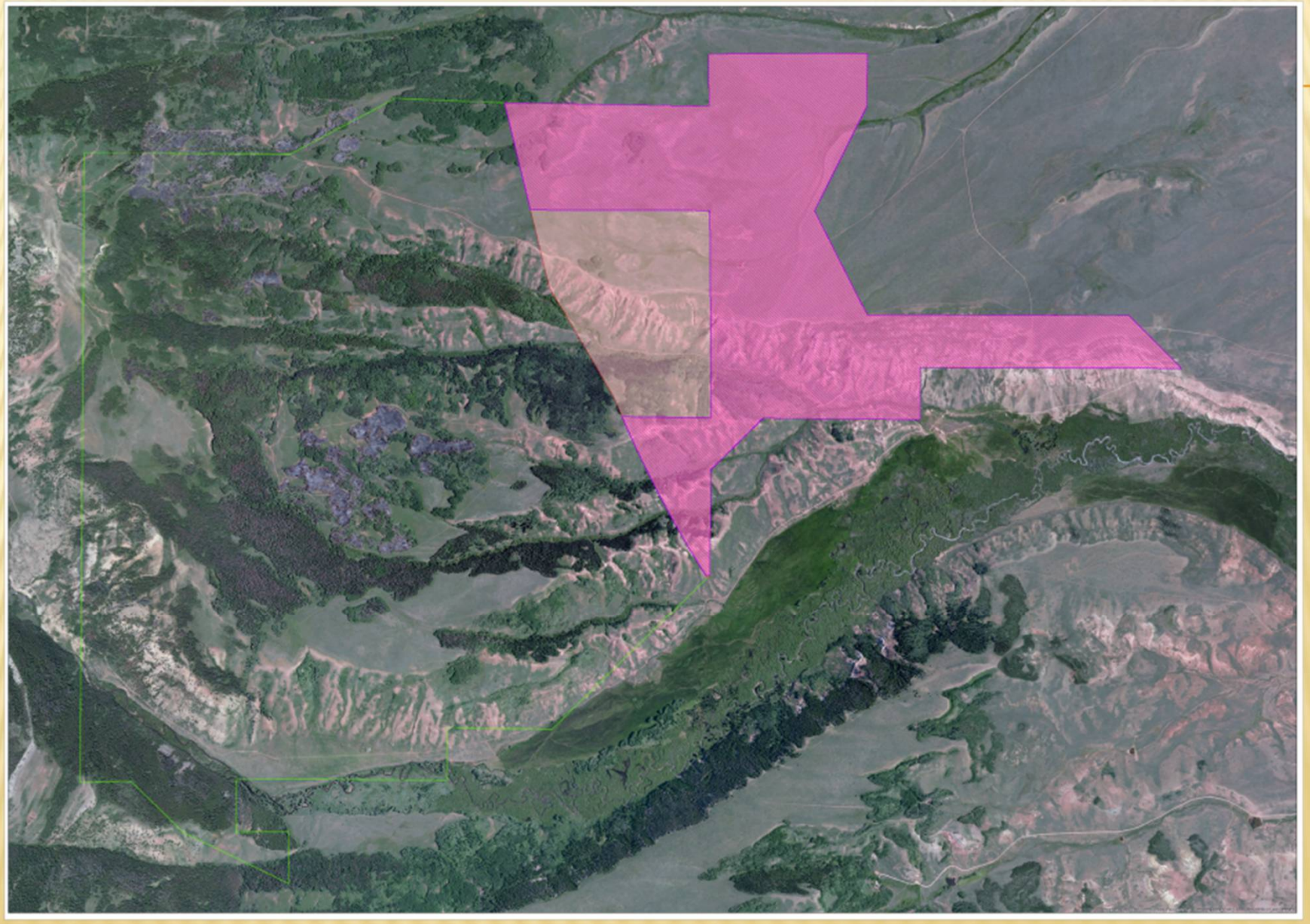

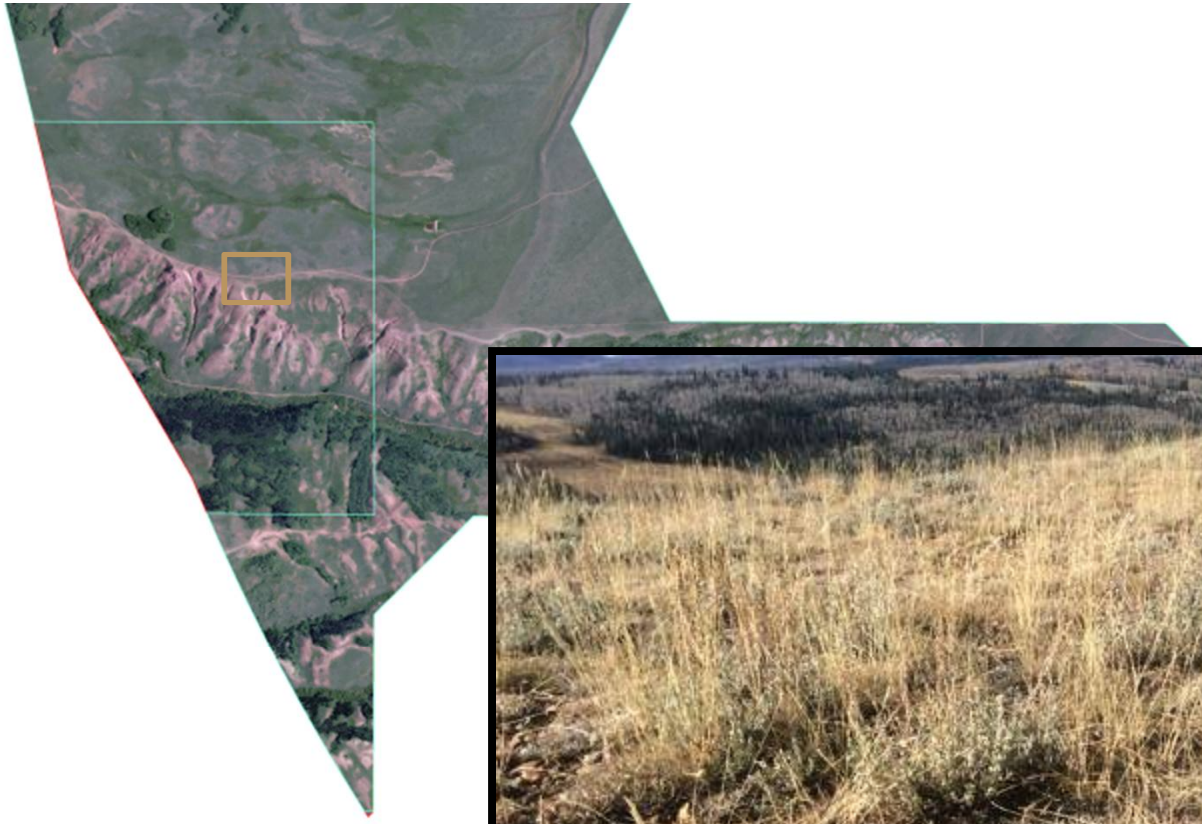

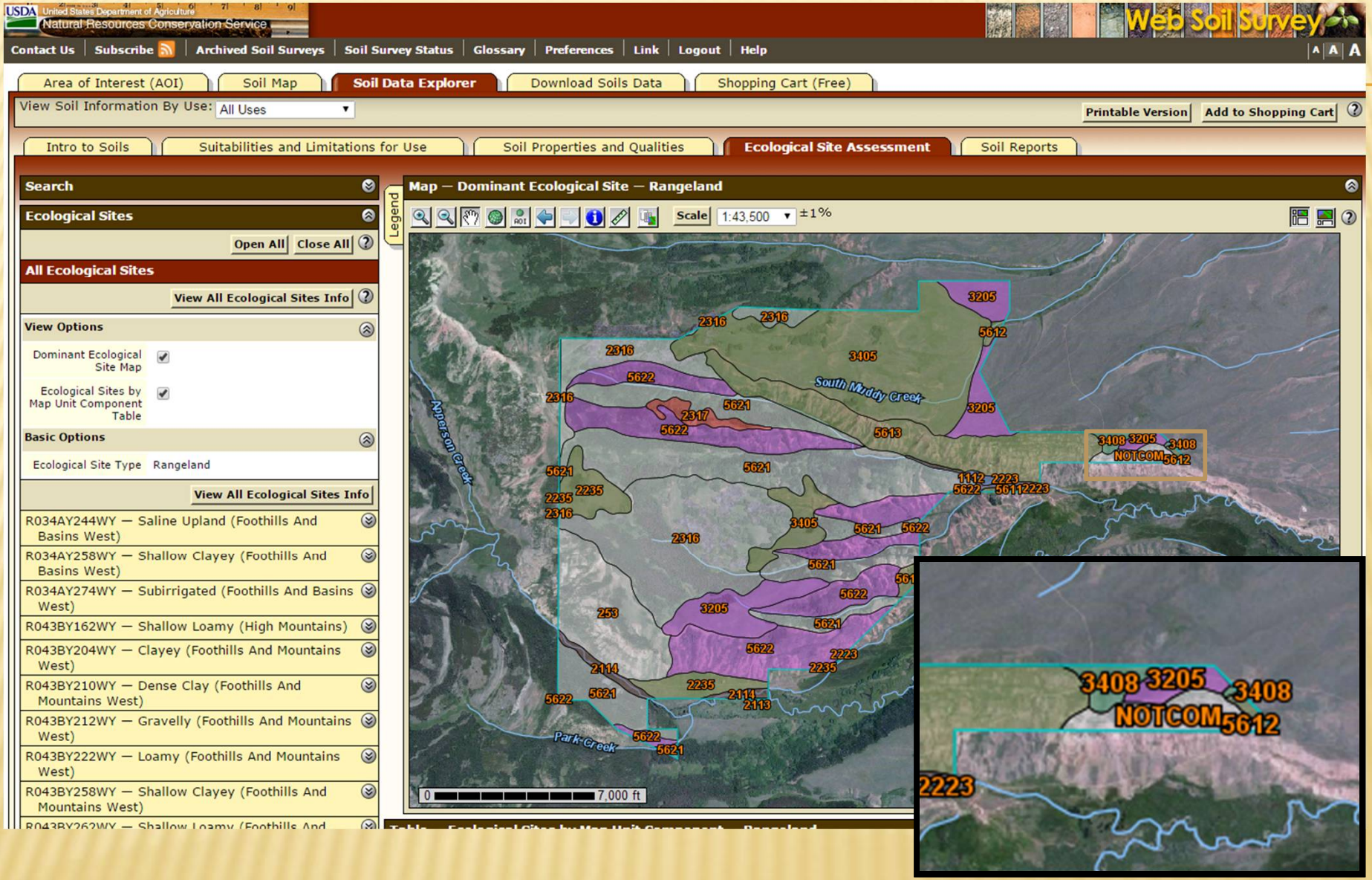
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R034AY258WY — Shallow Clayey (Foothills And Basins West)
R034AY274WY — Subirrigated (Foothills And Basins West)
R043BY162WY — Shallow Loamy (High Mountains)
R043BY204WY — Clayey (Foothills And Mountains West)
R043BY210WY — Dense Clay (Foothills And Mountains West)
R043BY212WY — Gravelly (Foothills And Mountains West)
R043BY222WY — Loamy (Foothills And Mountains West)
R043BY258WY — Shallow Clayey (Foothills And Mountains West)
Legend
Map — Dominant Ecological Site — Rangeland
Scale 1:43,500 ±1%
Arapahoe Creek
South Muddy Creek
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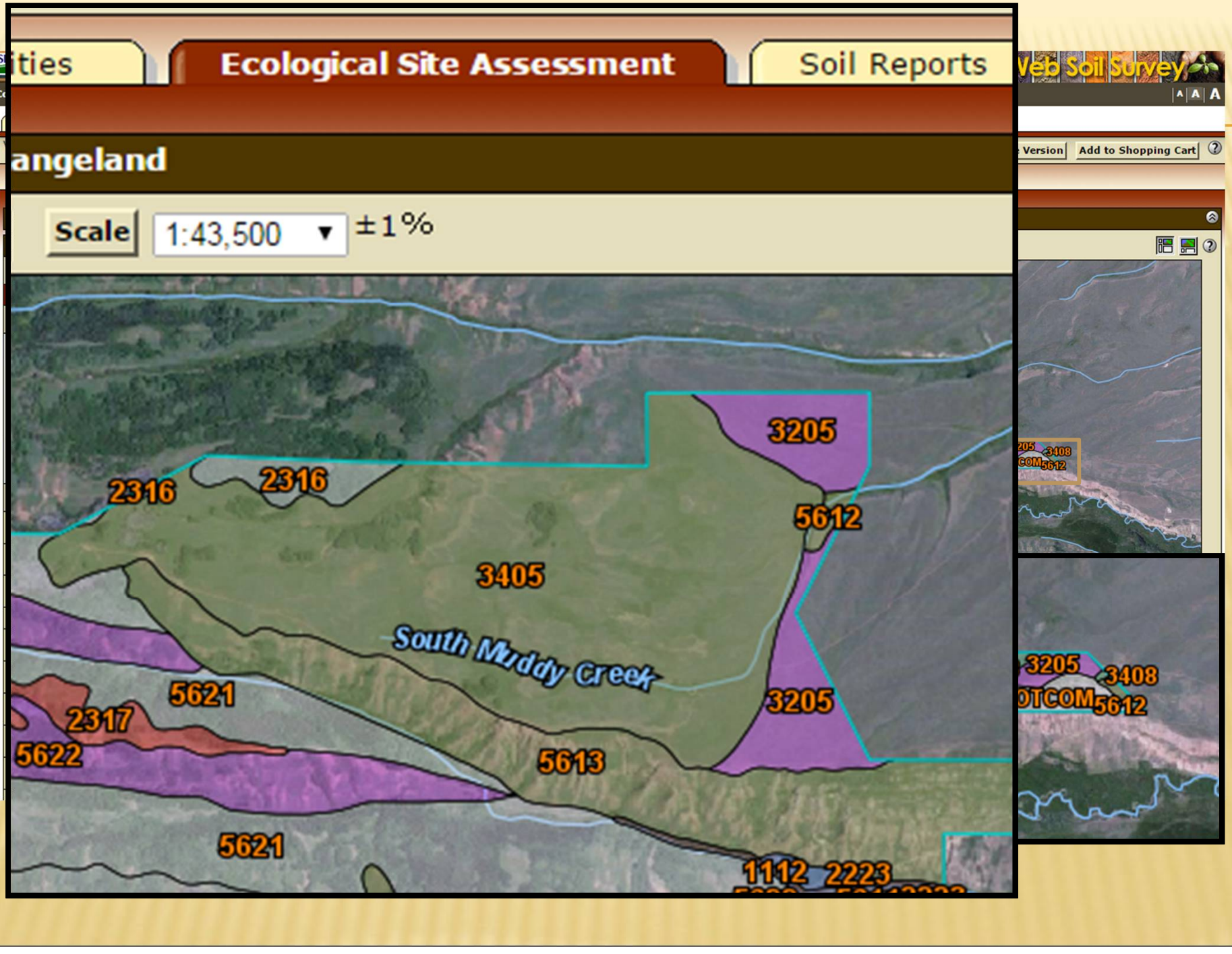
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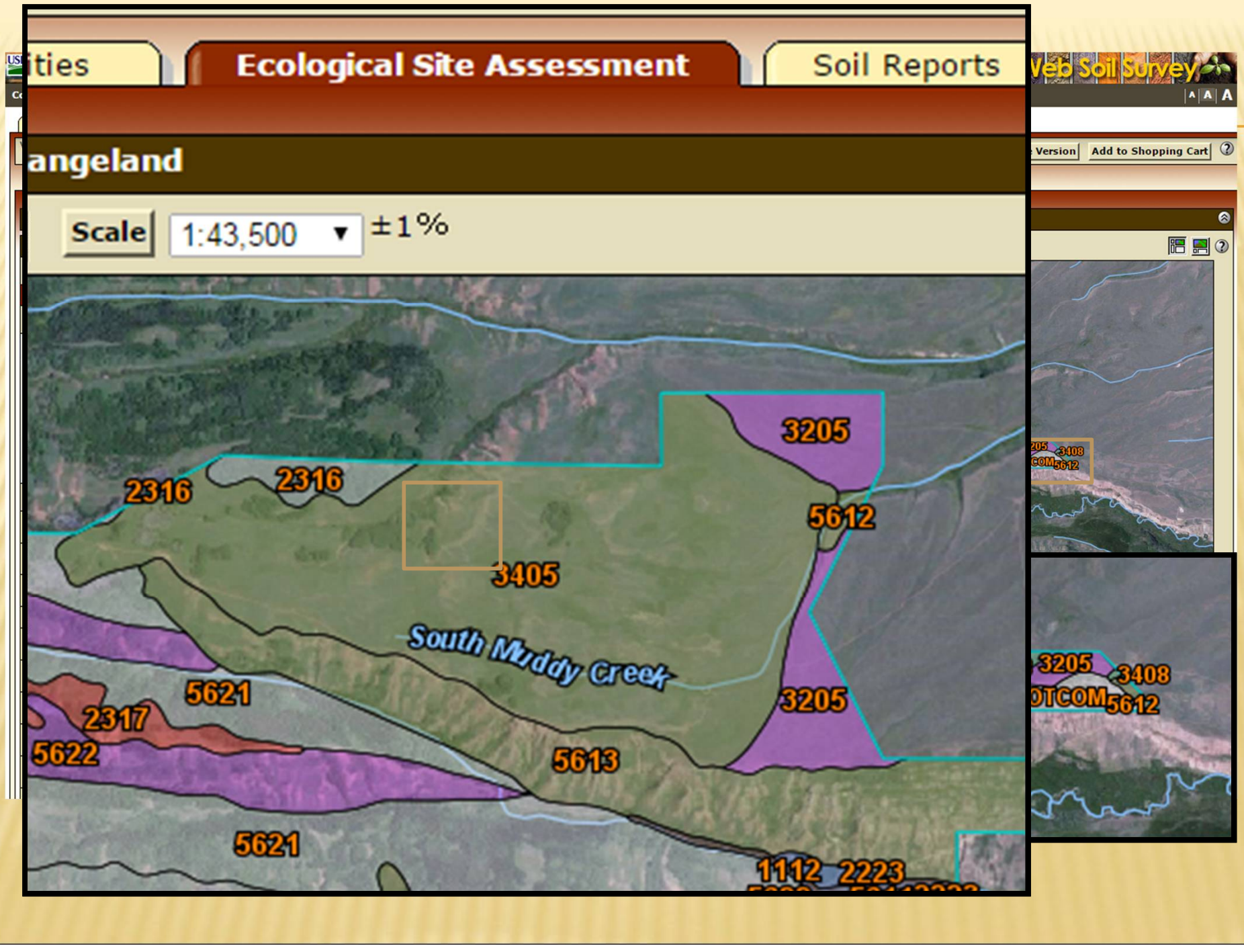
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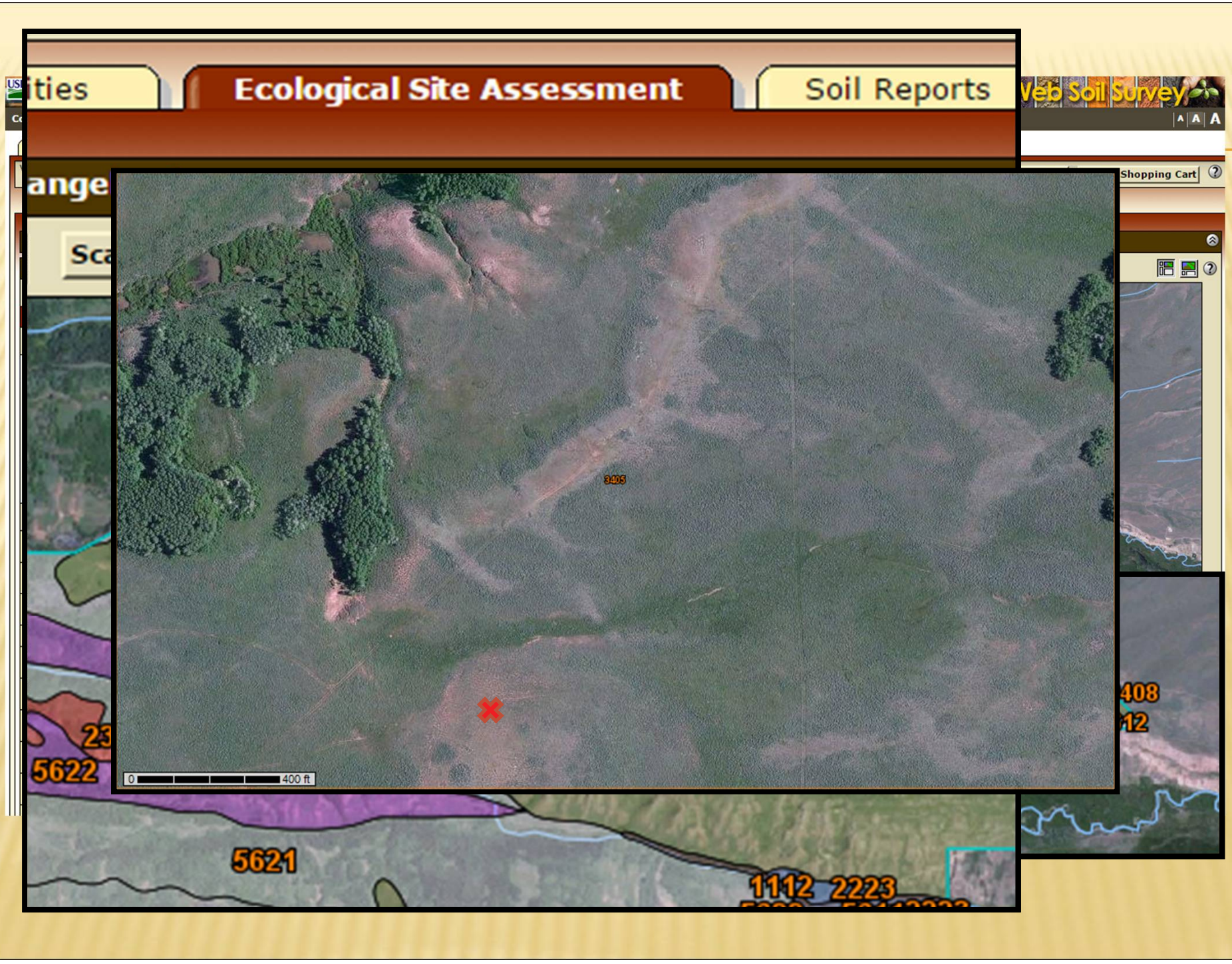
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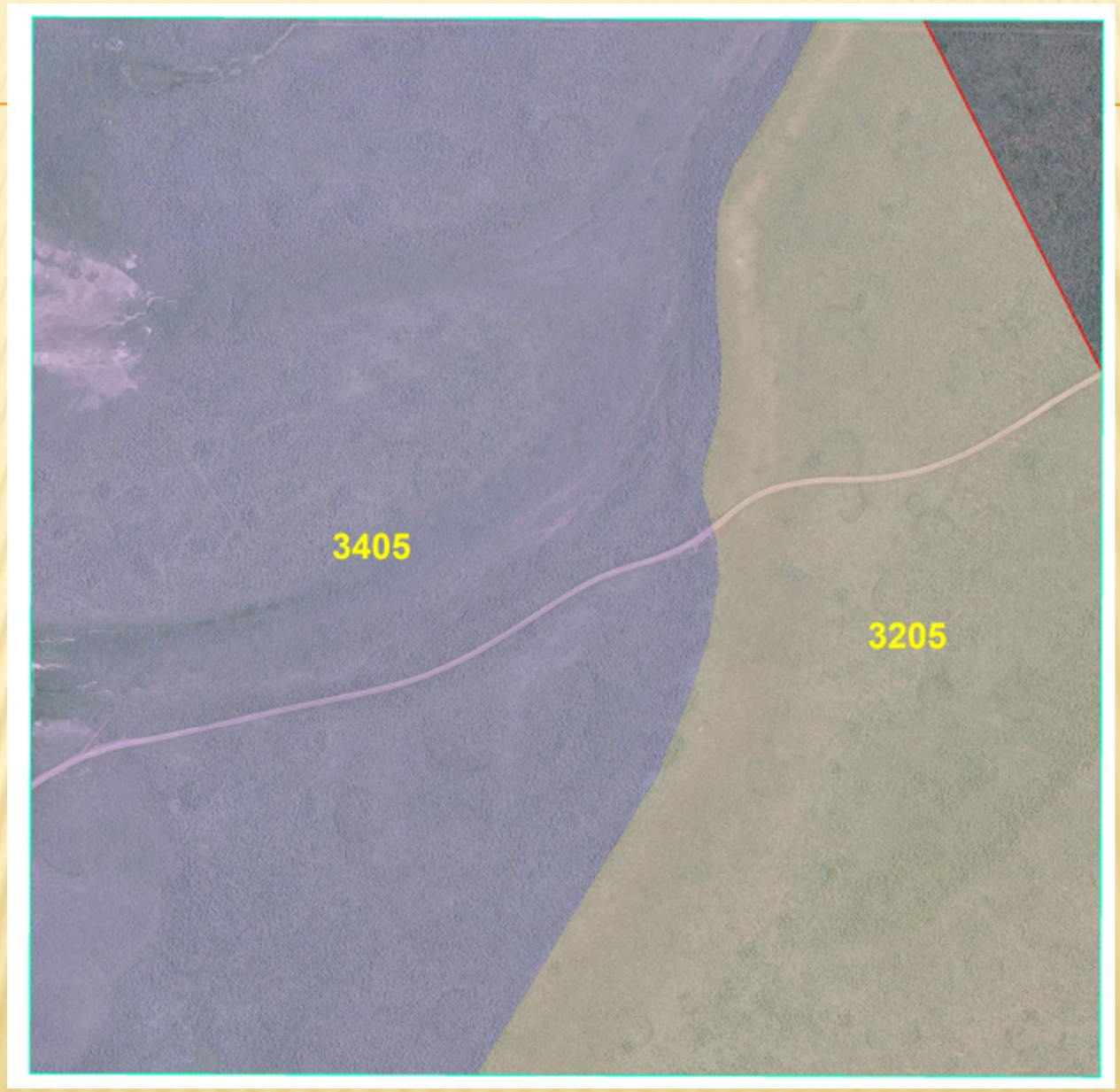
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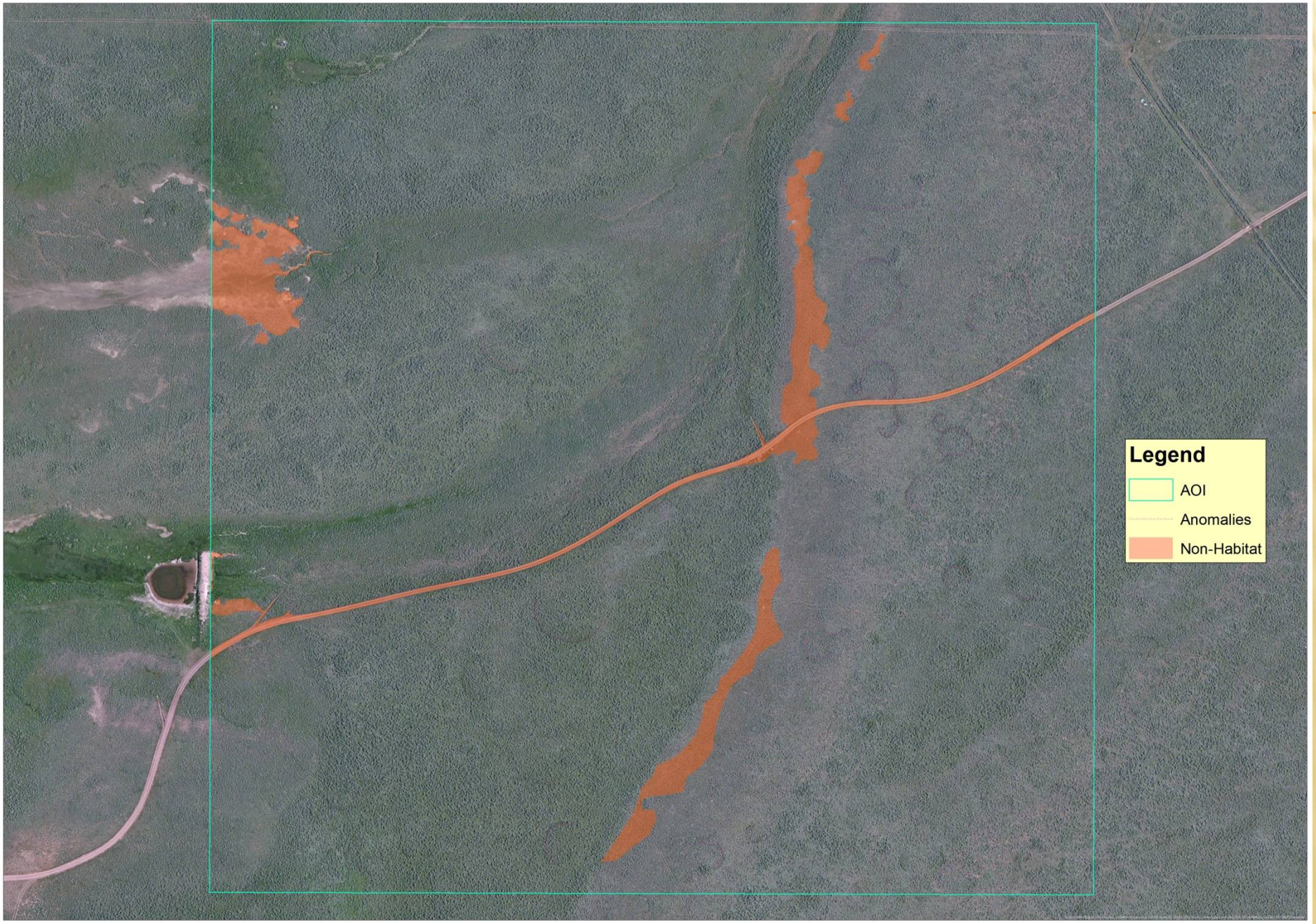
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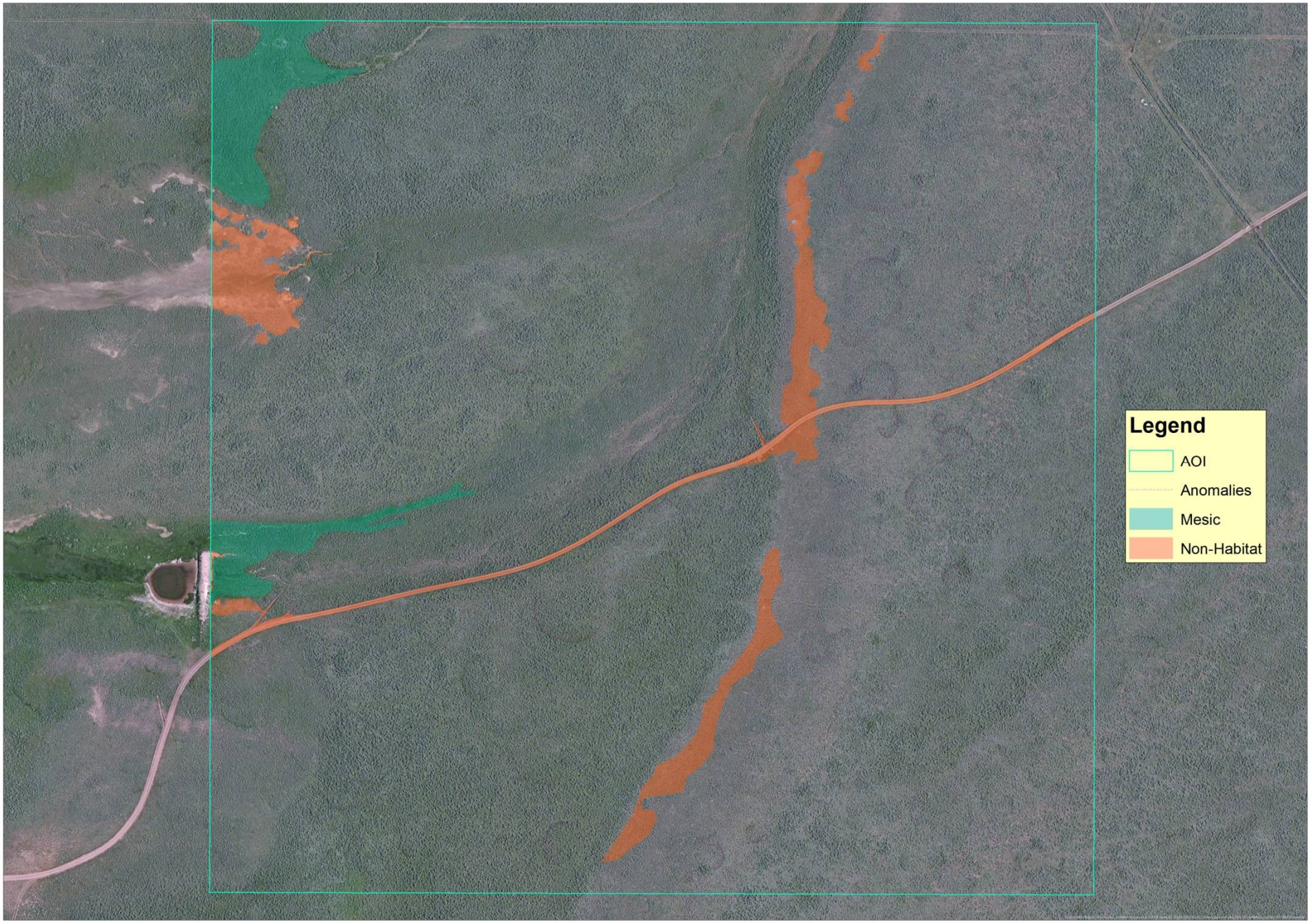
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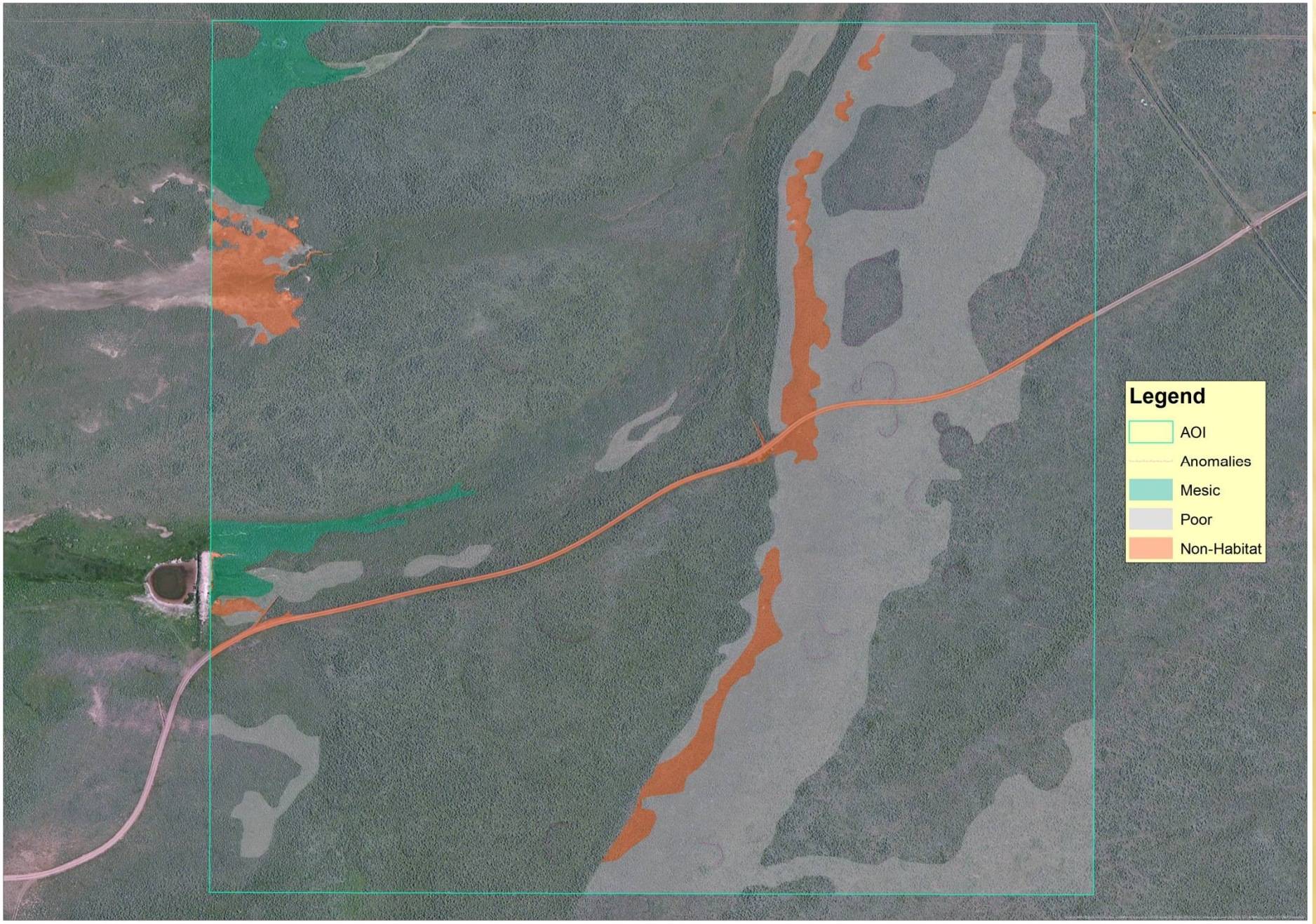
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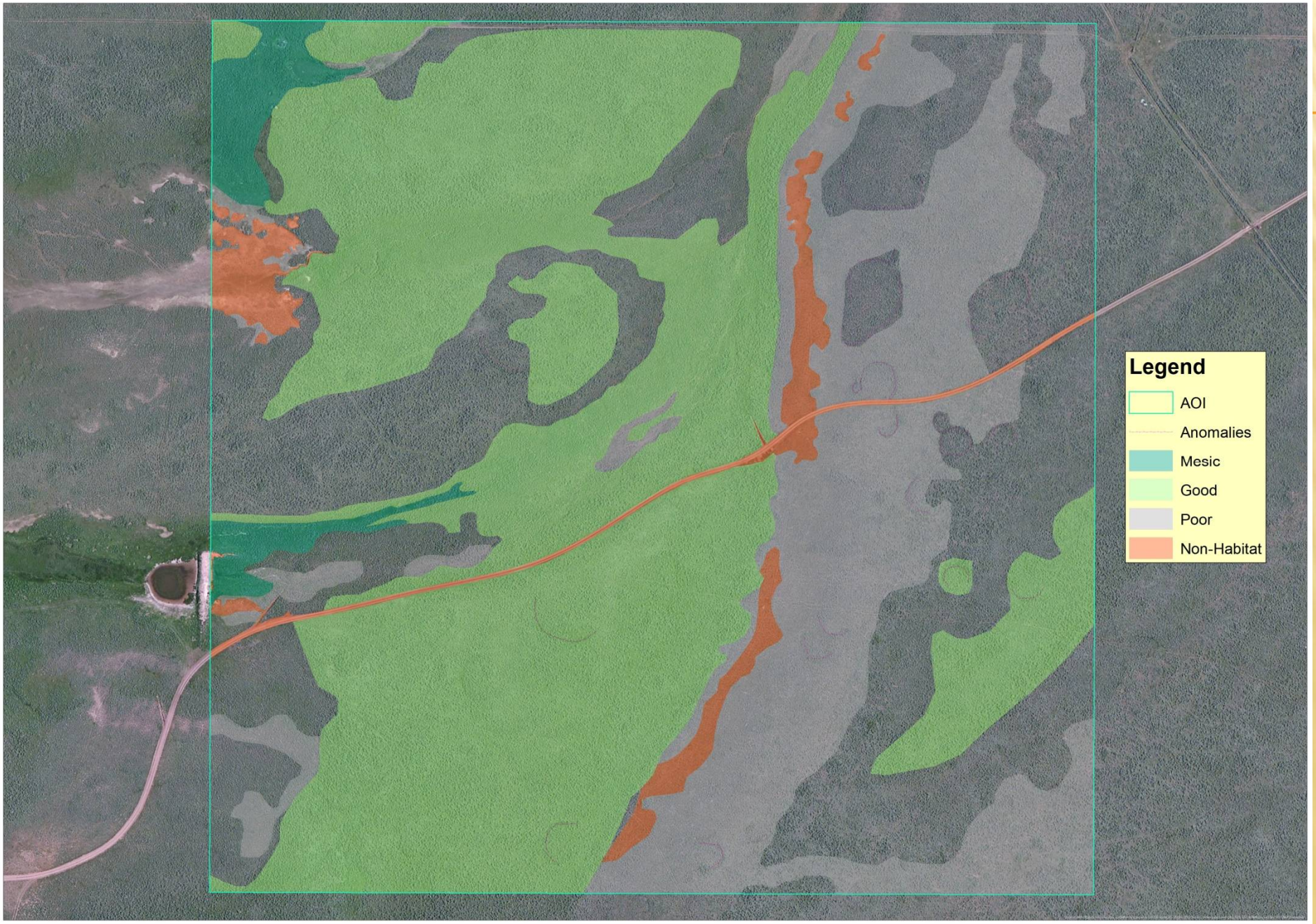
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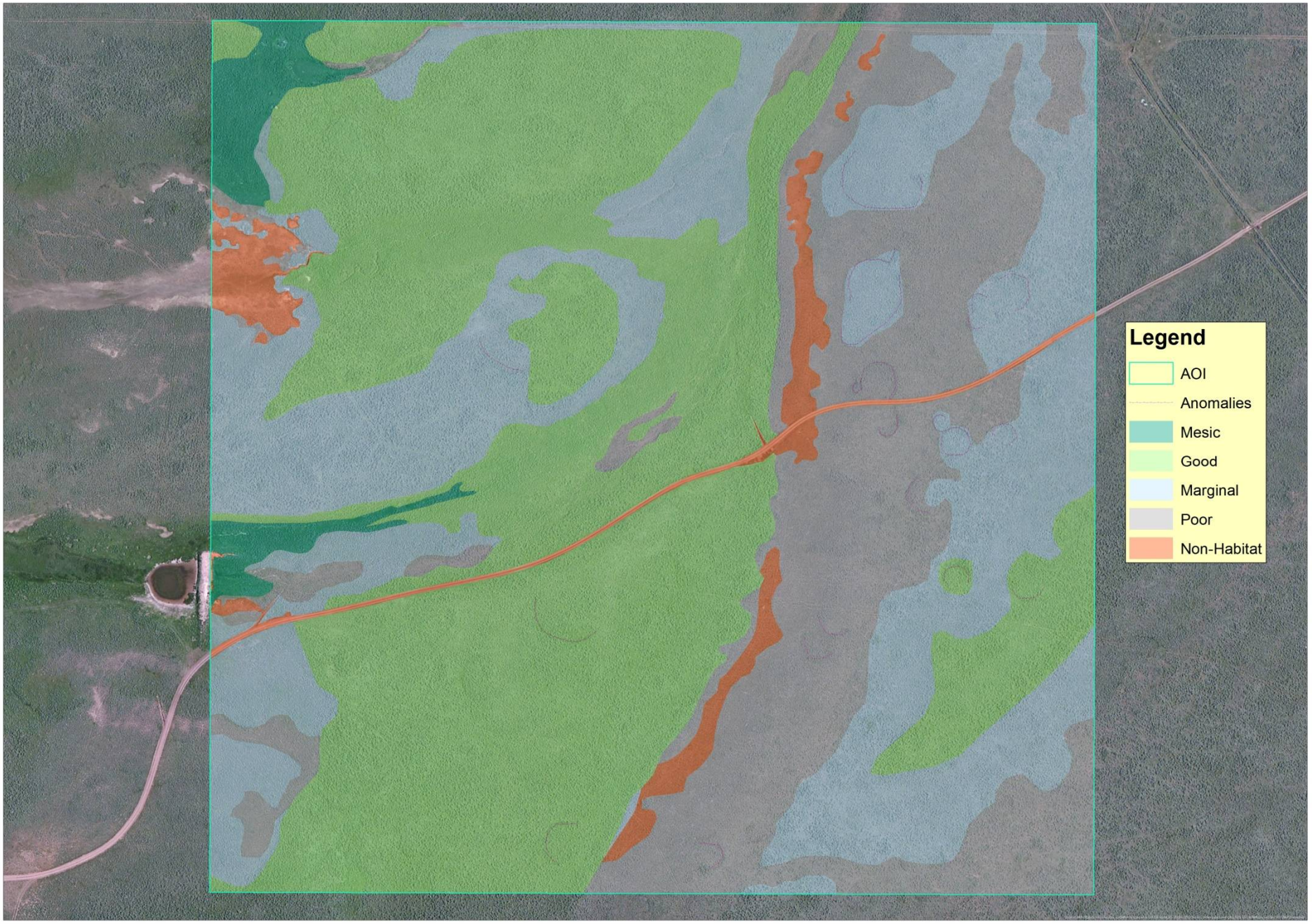
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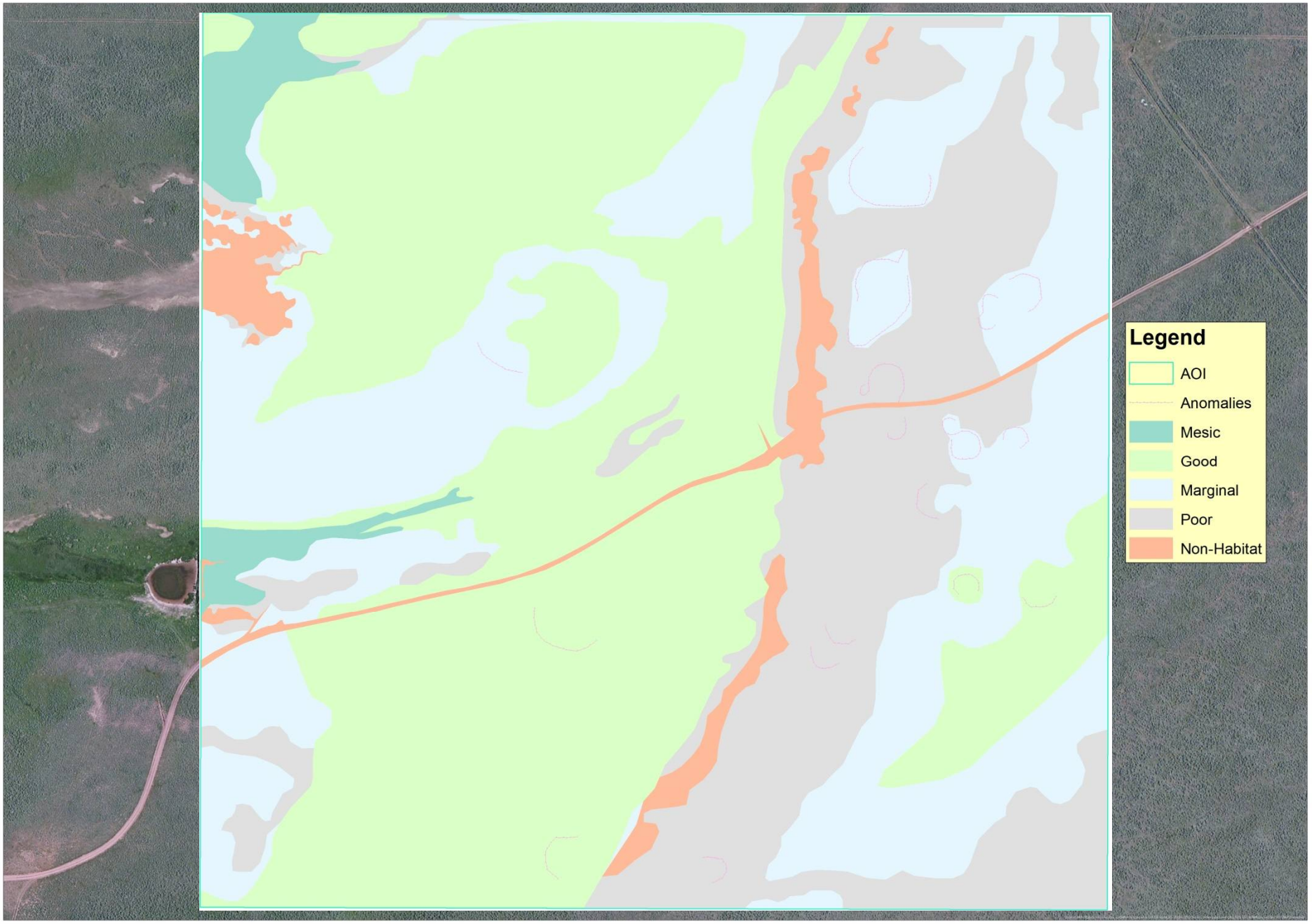
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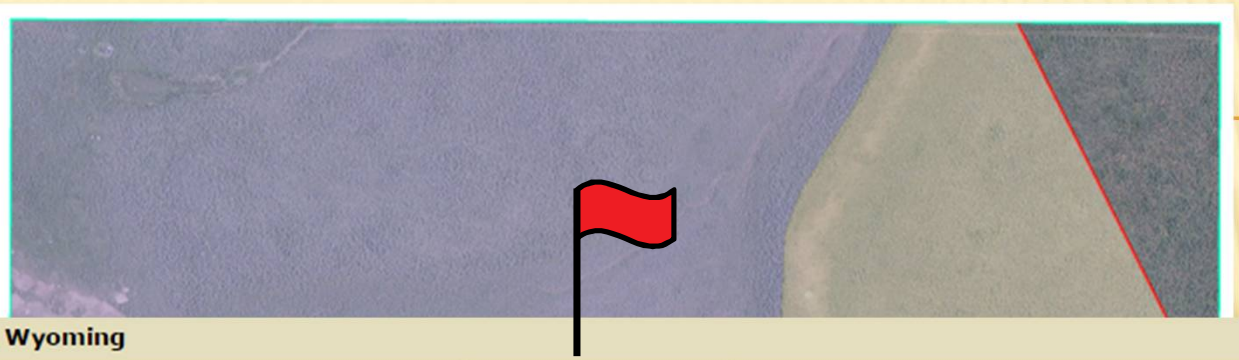

Sublette County Area, Wyoming

Map unit symbol	Map unit name	Component name (percent)	Ecological site	Acres in AOI	Percent of AOI
3205	Muddybench-Wilhelm complex, 1 to 6 percent slopes	Muddybench (50%)	R043BY258WY — Shallow Clayey (Foothills And Mountains West)	415.4	6.2%
		Wilhelm (35%)	R043BY222WY — Loamy (Foothills And Mountains West)		
		Billiesdraw (10%)			
		Heath (5%)			
3405	Jerry-Conwaycreek complex, 4 to 20 percent slopes	Jerry (70%)	R043BY222WY — Loamy (Foothills And Mountains West)	1,213.6	18.0%
		Conwaycreek (20%)	R043BY258WY — Shallow Clayey (Foothills And Mountains West)		
		lo-sk ustic argicryolls (5%)			
		Millerlake (5%)			

"Establishing achievable long-term goals based on state and transition models is a critical first step in synchronizing sagebrush plant community objectives with grazing management strategies"

(Cagney et al. 2010, pg. 4)

ESDs vs. REALITIES

- ESDs will not always align with “desired conditions” or reality which should emphasize need for local adaptation
- Case and point: State and Transition Models
  - Ex: 1 - R043BY222WY – Loamy (Foothills and Mountains West)

ESDs

- ESD
  con
  loca
- Cas
  - Ex
    M

d for

lels

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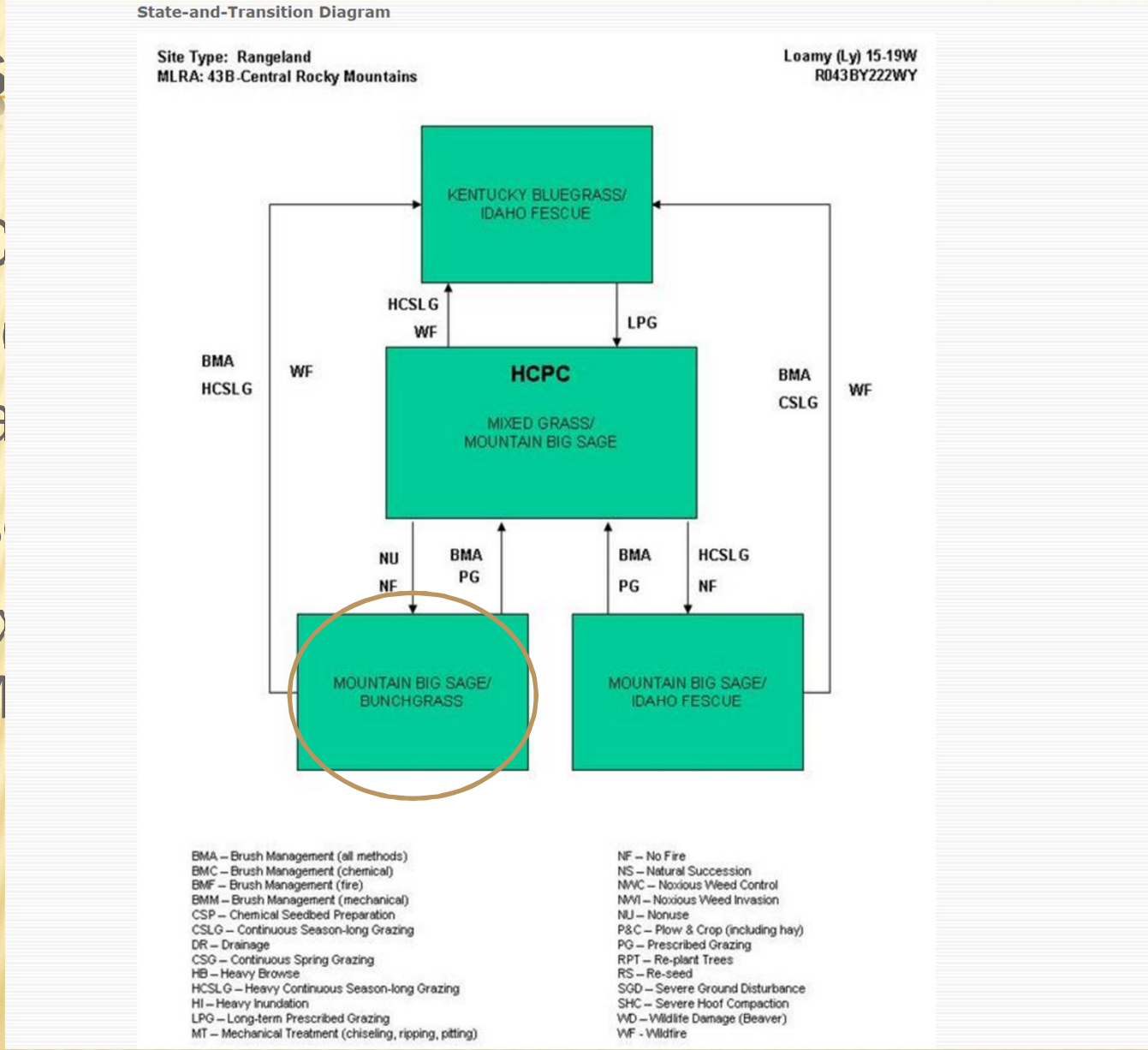

ESDs

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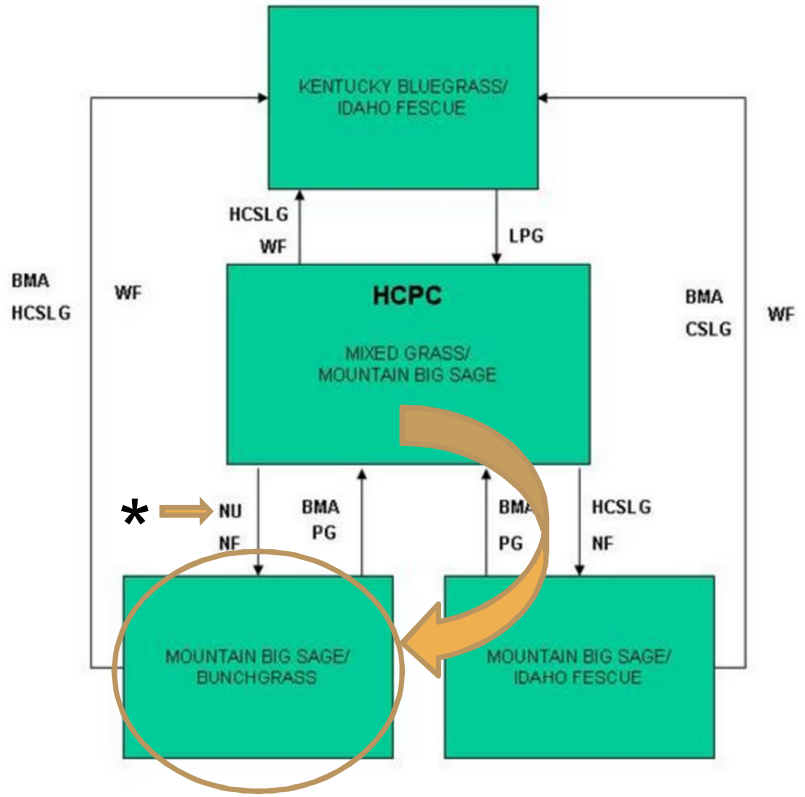
State-and-Transition Diagram

Site Type: Rangeland
MLRA: 43B-Central Rocky Mountains

Loamy (Ly) 15-19W
R043BY222WY



BMA – Brush Management (all methods)
BMC – Brush Management (chemical)
BMF – Brush Management (fire)
BMM – Brush Management (mechanical)
CSP – Chemical Seedbed Preparation
CSLG – Continuous Season-long Grazing
DR – Drainage
CSG – Continuous Spring Grazing
HB – Heavy Browse
HCSLG – Heavy Continuous Season-long Grazing
HI – Heavy Inundation
LPG – Long-term Prescribed Grazing
MT – Mechanical Treatment (chiseling, ripping, pitting)

NF – No Fire
NS – Natural Succession
NWC – Noxious Weed Control
NWI – Noxious Weed Invasion
NU – Nonuse
P&C – Plow & Crop (including hay)
PG – Prescribed Grazing
RPT – Re-plant Trees
RS – Re-seed
SGD – Severe Ground Disturbance
SHC – Severe Hoof Compaction
WD – Wildlife Damage (Beaver)
WF - Wildfire

ESDs

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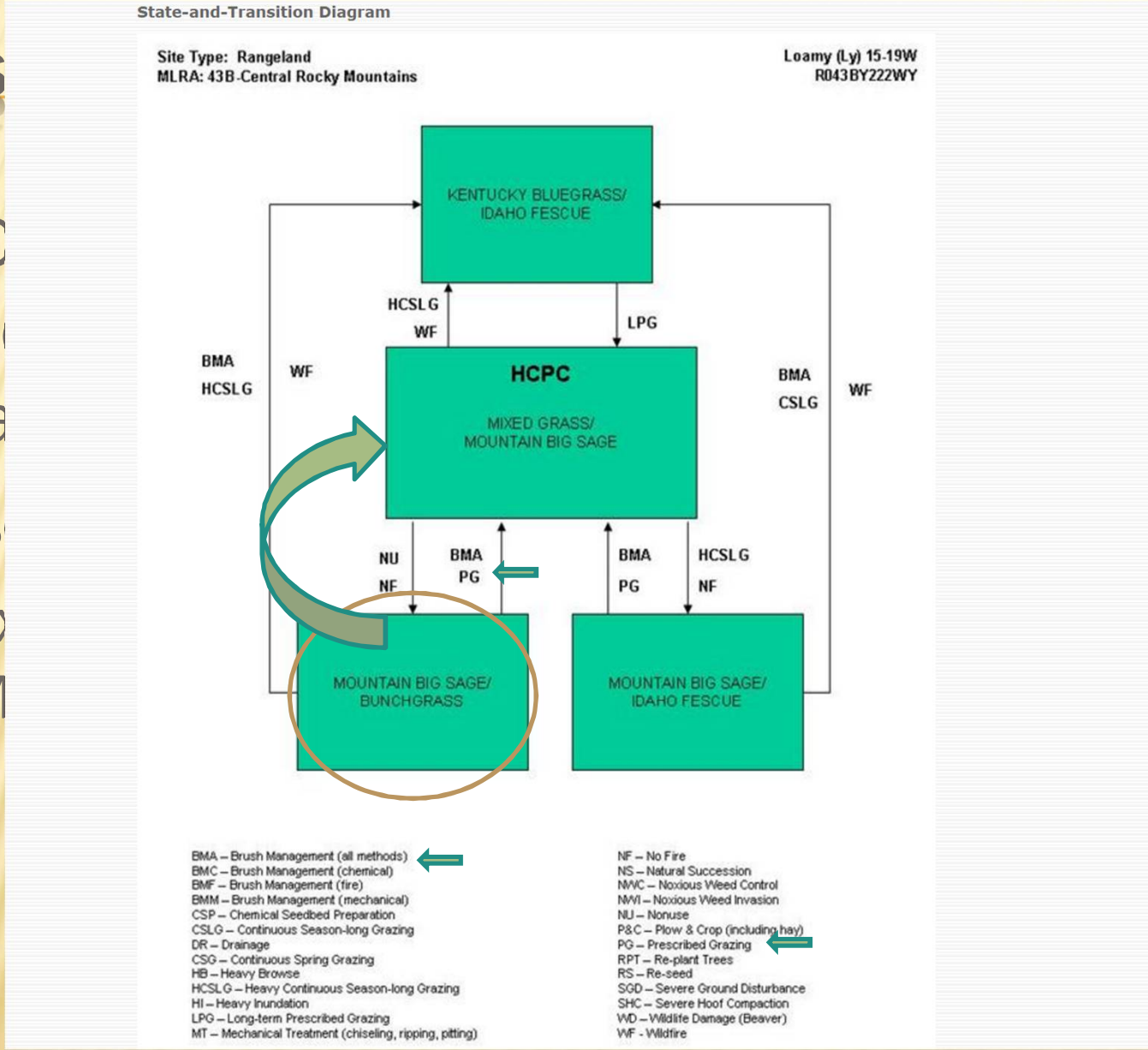


ESDs

State-and-Transition Diagram

Site Type: Rangeland
MLRA: 43B-Central Rocky Mountains

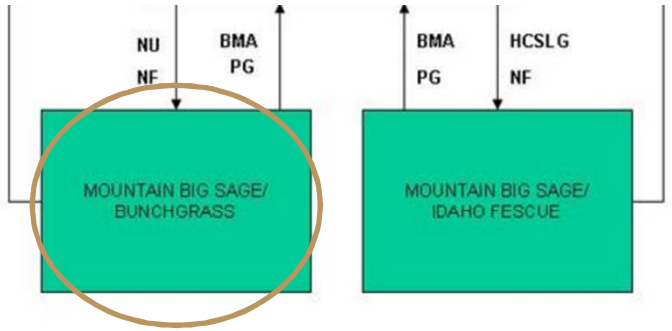
Loamy (Ly) 15-19W
R043BY222WY

Table 2-2
Seasonal Habitat Objectives for GRSG Wyoming Basin Ecoregion

Attribute	Indicators	Desired Condition[6]	Reference
Predominant sagebrush	Predominantly spreading		Stiver, S. J., E. T. Rinkes, D.

[6]All Desired Conditions will be dependent upon site capability and local variation (e.g., weather patterns, localized drought, ESD state, etc.).

- loca
- Cas
  - Ex
  - M



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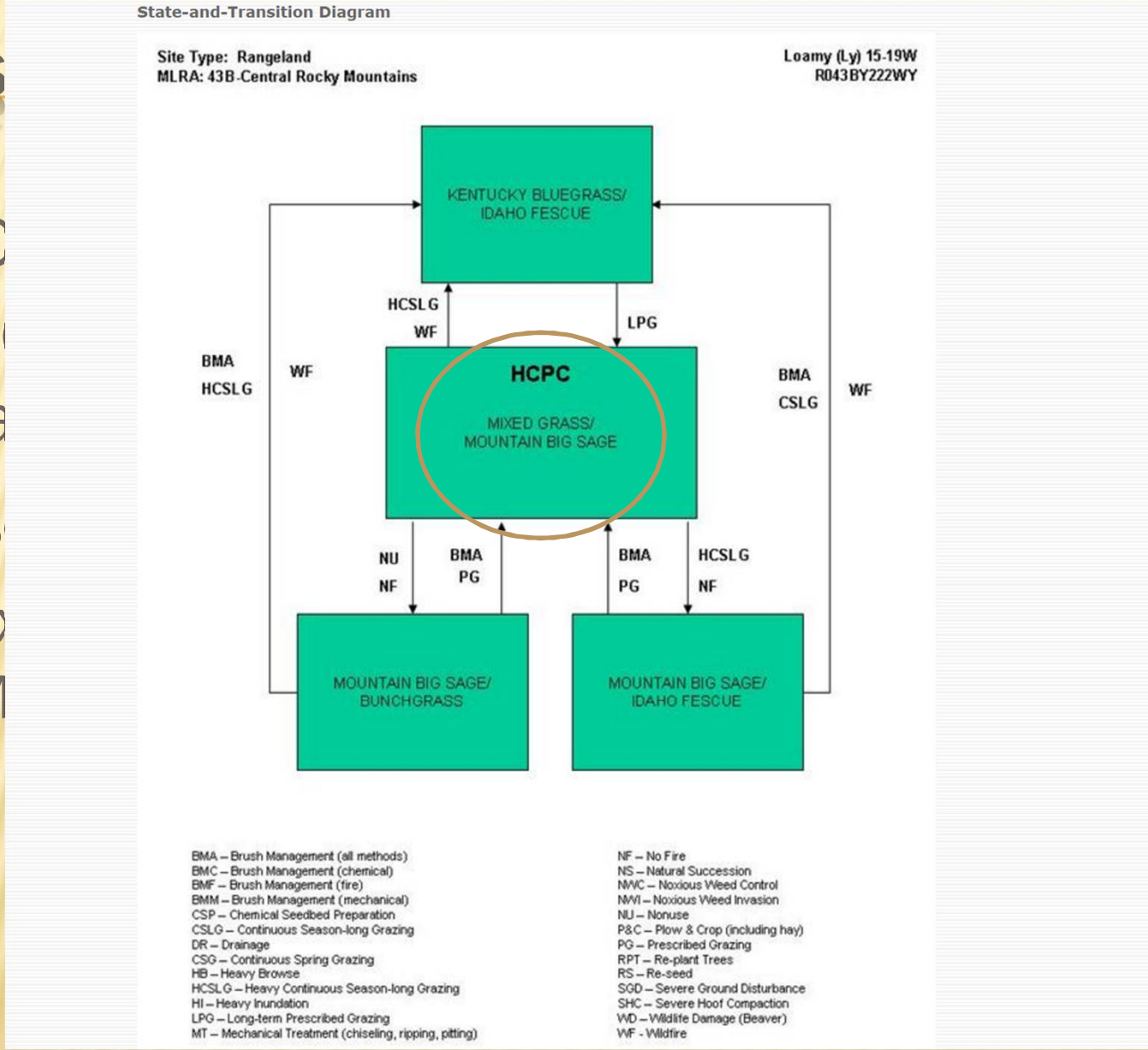

ESDs

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- Cas
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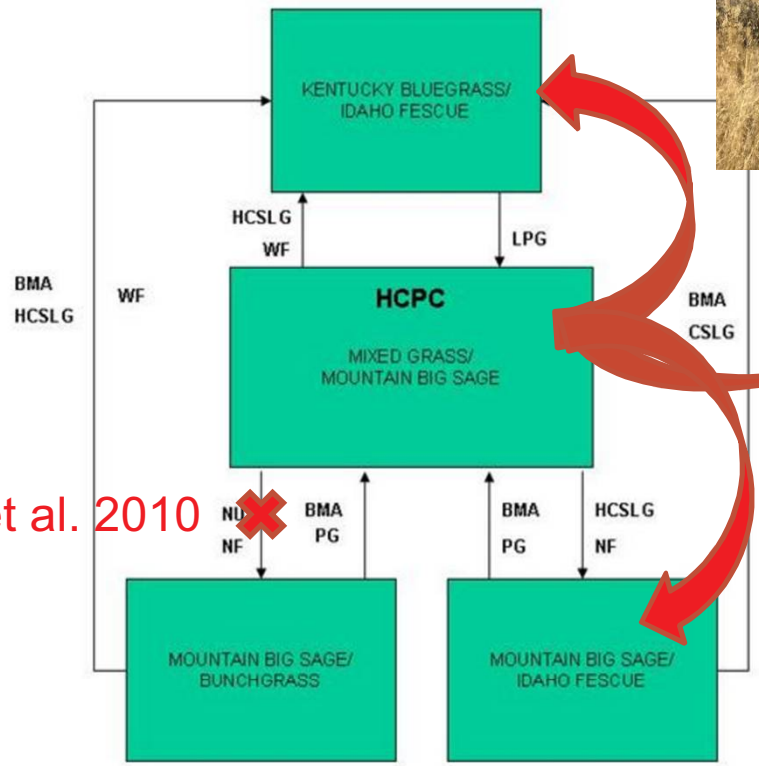
State-and-Transition Diagram

Site Type: Rangeland
MLRA: 43B-Central Rocky Mountains



Cagney et al. 2010

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IMPLEMENTATION - NEXT STEPS

- Assessments to complete the Habitat Assessment Framework Tool as described by Stiver et al. 2015
- Adjustments for local variability in habitat, weather, inputs, plant species, etc. that inform possible adjustments in management
- Possible adjustments in management strategy*

MAJOR POINTS

- Logical, achievable goals have to be set
- The correct data at the correct scale must be available and used
- Managers have the latitude to deviate
- Local variability has to underlie decisions and objectives
- This cannot, and should not, happen quickly
- Implementation has to be adaptive, pragmatic and applicable
- Changes in management have to be capable of change themselves

QUESTIONS/DISCUSSION